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A STUDY IN TRANSSEXUALISM*

BY NAHMAN H. GREENBERG, M.D., ALAN K. ROSENWALD, PH.D., AND PAUL E. NIELSON, M.D., PH.D.

Many physicians, including those who practise specialties, have on occasion been confronted by a male patient requesting an operation which would result in a "sexual transformation." These patients usually give a history of transvestitism and in their demand for surgery confront the physician with multiple problems, none immediately solvable. In the first place, the notion of sexual transformation is in reality a request for an emasculation and the construction of an artificial vagina. When this is accompanied by hormone injection, resulting in female breast development, there is produced an illusion or fantasy of "having become a woman." Actual "sexual transformation" is, of course, as impossible as altering one's own genetic structure after birth. The complaints of such wanting to "change sex" must be viewed as symptomatic of pathological processes, primarily psychogenic. The physician, when confronted with such a patient, might resort to any number of solutions of varying therapeutic consequence. The patient might be referred for psychiatric help, might be given hormone therapy, might be incarcerated or frankly rejected with no offer of help.

The authors were confronted with a "*fait accompli*" when a 41-year-old male transvestite, who had undergone an emasculation in Europe for purposes of "sexual transformation," was referred to the University of Illinois Neuropsychiatric Institute.** They, thereby, had an opportunity to investigate a problem which encompasses psychiatric, social and legal aspects. Only one such case has been previously reported (the Christine case).[1] The evaluation reported there appeared to the writers to be limited, especially in its psychiatric and psychodynamic aspects. In this paper, this subject will be reviewed, the writers' own case will be presented, and some of their own hypotheses, relating to this general problem, will be developed.

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Transvestitism was the term Magnus Hirschfeld utilized in describing the desire of a person to wear clothes of the opposite sex. He coined the word from *"trans"* and *"vestitus,"* and the meaning is "opposite in dress." The word "eonism" was synonymously utilized by Havelock Ellis.[2] It was derived from the name of a close friend of Louis XV, the Chevalier d'Eon Beaumont, a French diplomat, who from the age of 44 until his death at 80 assumed feminine dress and was employed as a female impersonator by his government. Hamburger and his associates refer to the condition where, in addition to cross-dressing, there is a desire for emasculation, as "genuine transvestitism" or "psychic hermaphroditism." This was specifically noted in the "Christine" case,[1] which involved an emasculated transvestite. Benjamin[3] has called the extreme degree of transvestitism, where the "transformation of sex" is the foremost desire, "transsexualism," the cardinal differentiation from transvestitism being that in the transvestite the sex organs are the source of pleasure, while in the transsexual they are the source of disgust.

Cross-dressing has existed historically in different cultures accompanied by varying degrees of acceptance. In mythology for example, ordered as a condition of servitude, Hercules clothed himself in female garments when serving Queen Omphale. Yawger[4] has noted that "though the Bible forbids crossdressing, many clergymen wear robes. When the native Chinese woman is seen in trousers she is obedient to the dictate of centuries. When the Scotchman wears kilts he is conforming to a picturesque national custom; when a maid appears on the street in pajamas or slacks she is revealing a bit of innocent masculinity; and when Marlene Dietrich dons male attire it is a pose."

Classification and Theories of Origin

Attempts have been made to classify and differentiate degrees of transvestitism. Hirschfeld described five varieties including the heterosexual, the bisexual, the homosexual, the narcissistic, and the asexual.

Benjamin[3] classifies transvestitism into three types. The first or "psychogenic" type is described as characteristically lacking in masculinity and early shows a marked feminine component. Members of this type are miserable when dressed as males, and their desire for sexual contacts is low. They are further described as

introverted and nonaggressive; they typically feel that society should change its attitudes toward them, and on occasion they are in social or legal difficulties. The second or "intermediate" type is midway to transsexualism and oscillates between heterosexual and homosexual tendencies. Overt feminine behaviorisms are more obvious, and Benjamin notes that persons of this type experience narcissistic masturbatory fantasies. The third or "somatopsychic transsexualist" type is typified by the Christine case; and Benjamin expresses the opinion that people of this sort are the "victims of their genetic constitution."

The theories as to the genesis of transvestitism range from a purely organic orientation to psychogenic ones, with some authors combining factors from each school. The organicists who speak of "constitutional factors" argue that there are frequent appearances of more or less pronounced female physical attributes and Hamburger et al.[1] have stated that it is "reasonable to suppose that the more feminine the physical features in a man the more likely are the chances of sexual difficulties," for example, impotence, homosexual tendencies, and possible transvestite tendencies. They further cite Goldschmidt's intersex theory, which proposes the possibility of a female gametically, i.e., possessing two X chromosomes in the body cells, who has male organs, but who must (because of the two X chromosomes) be regarded as a woman with malformations. Though this represents an interesting theory, no evidence with application to transvestitism has been presented in its support. It should be noted that recent work by cultural anthropologists and kineseologists has shown that gestures and mannerisms characteristic of a specific sex are learned phenomena and are evident in most situations within the first five years of life. In spite of the lack of evidence as to constitutionality, many authors persist in adding that factor as a major determinant in transvestitism. Ostow,[5] presenting a pointed argument against a constitutional genetic etiology, wrote, "it has not proved possible to date to associate the appearance of traits, mannerisms, or behavior patterns characteristic of one sex in persons of the other sex with any objective physical findings, either clinical or laboratory. On the other hand endocrine dyscrasias where they affect sexual desire and performance merely diminish them; they do not pervert them. Physical hermaphrodites and pseudohermaphrodites seldom show overt mixtures of sexual traits or overt per-

versions. They usually adopt quietly the behavior appropriate to the sex that is assigned to them by their parents rather than to what might be called their biological sex, namely the sex as determined by the gonads."

Psychogenic Theories

The male transvestite has been described as an imitator of female activity with an array of feminine mannerisms. He enacts the role with extreme skill, adopting gestures, dress, and other external appearances, even to a degree where the behavior appears typically studied, over-accentuated and overdone. He is observed to experience anxiety and depression, and to be agitated frequently when in male clothes. His female clothing is often of large quantity, good taste and excellent quality, rarely with any provocative features. His preferred sexual activity is auto-erotic, and the partner during intercourse is probably needed only as an interested spectator.

Historically, fetishism, transvestitism, and homosexuality have been viewed as psychodynamically related. Freud[6] described the fetish as a penis substitute, specifically for the woman's (i.e. the mother's) phallus, which the "little boy believed in and does not wish to forego." The fetishist denies castration possibilities in himself and the woman. With the sight of the woman's genitals, the fantasy occurs that if she can be castrated so can he. Freud stated that the "perception is promptly obliterated so that the result is the same as when a visual impression falls on the blind spot on the retina... the perception has persisted and a very energetic action has been exerted to keep up the denial of it." However, something else takes the place of the woman's penis and thus "fetishism remains as a token of triumph over the threat of castration and a safeguard against it; it also saves the fetishist from being a homosexual by endowing women with the attribute which makes them acceptable as sexual objects."

The concept of fetishism as originally defined by Freud has undergone many reformulations. The fetish object apparently is more complex than originally supposed, and can be viewed as consisting of many properties, and as dynamically related to different phases of libidinal development. In the case of a 16-month-old male[7] a stocking or brassiere belonging to the child's mother had to be given to him so he could go to sleep. In this young child,

the fetish represented a substitute for the mother's body and in particular for her breast. The main relationship existed in the gratification associated with the erogenous zone characteristic of the particular stage of psychosexual development. It was postulated that the orally cathected fetish would later become invested with anal and sadistic impulses and ultimately become identified with the child's genitals. It was further postulated that the fetishist holds onto the fetish as a substitute for rejection on the part of the object. The rejection is experienced as a severe narcissistic injury and a direct castration. Wulff[7] emphasizes that for a time the infant perceives its immediate environment primarily through touch and smell, and only later visually, when mobility in space is achieved. Fetishists take much pleasure in the aspects of touch and smell, and it has been reported that they can experience orgasm with the mere touch or smell of the fetish. With infantile fetishism, Wulff maintains there is a tenacious adherence to the first component-instinctual object of all, the maternal breast. It can be concluded that the most primitive fetishism in the adult is analogous to fetishism in the infant.

Abraham,[8] in his analysis of a foot and corset fetishism, noted that his patient had originally found pleasure in "disgusting" body odors. There was repression of the patient's coprophilic pleasure in smell and scopophilia, which played a part in the psychogenesis of the foot fetish. In smell-fetishism, pleasure is frequently obtained from perspiring and unclean feet. Abraham's patient's scopophilia and the erotic stimulation aroused by odors (osphresiolagnia) were chiefly directed to the function and products of urination and defecation. Early childhood memories were chiefly connected with impressions of smell. The anal zone predominated, and the fetishist found abundant gratification in the odors of his own excretions and secretions. Such odors from skin, genitals and feet were pleasurable at an early age. Abraham concluded that the pleasure in disgusting body odors is repressed, as well as scopophilic and sexual activity, and that this leads to compromise formation.

Alexander,[9] in an analysis of a transvestite, confirms the presence of masochistic gratification and of passive homosexual wishes, and emphasizes the gratification of early infantile and anal-erotic tendencies. Balint[10] noted that the fetish is a worthless object raised to dignity, which remains in undisturbed possession and has

a fecal-like smell. He concluded that the fetishistic act is closely connected with the anal theory of birth and coitus. He cites Melanie Klein, in pointing out that at a rather early period of the child's development, the feces and body contents of the parents, especially of the mother, reach the central point of interest; and the most important sexual aim of this period consists in getting hold, by every possible means, of these bodily contents which are endowed with magical powers. Wilson[11] points out the importance of olfactory repression and notes that nasal congestion may represent a somatic compliance with, or a substitute for, a perversion, that is, it acts as a "deodorant."

Payne,[12] in stressing the role of aggression, emphasized that the ego was defending against an archaic sexual aim of killing the love object. She remarked that the fetishism is only one manifestation of a pathological mental state which includes attacks of depression and anxiety, the presence of fears and fantasies of a paranoid type, and suicidal tendencies. She, too, noted that the fetish is connected with every component of infantile sexuality, especially smell and touch, and she associated scopophilic and coprophilic interests and activities with oral sadistic and erotic desires. She drew attention to the fixation of ego development at an oral and early anal level, and added that the ego is driven to reinforce itself by reliance on objects, employing primitive methods of control, and submitting to the parents and their internalized images. The fetish is symbolic of internalized part-objects and also of a combined parent image, and serves defensively as protection against sadistic attacks. Payne concluded that the psychology of the fetish is dominated by castration fear, traced to infantile situations connected with unusual tension of the aggressive impulses that are inseparably bound up with sexuality. Peabody, et al.[13] noted that the fetish may represent not only the mother's penis but in addition may also symbolize feces, breast, vagina, mouth and other representations of the various erogenous zones.

Fenichel[14] early postulated two components in the transvestite act: (1) an object-erotic or fetishistic one and (2) a narcissistic one. In the former, the person cohabits with the clothes of the woman representing his mother. Instead of coitus with the mother or mother substitute, the transvestite enters into a fetishistic relationship with her. It has been stated the body odor and warmth

of the clothes appear significant. The transvestite act is narcissistic in that the transvestite identifies with the phallic woman (the mother), and the love for the phallic mother is transformed into love for the self.

Gutheil[15] has listed six psychopathological factors important in the development of transvestitism. They include (1) latent or manifest homosexuality with unresolved castration complex, (2) sadomasochism where the masochism accentuates the passivity and femininity and at times results in strangulation acts, (3) narcissism, (4) scopophilia, (5) exhibitionism, and (6) fetishism.

Bunker[16] noted that the need of a patient to deny the idea of castration and the cause of his castration anxiety can be handled by (1) the demand that the love-object possess a penis, either illusional as with fetishism or real with the passive homosexual, (2) the denial that anybody without a penis exists, as in fetishism and transvestitism, and (3) the demonstration that no such person exists, as in exhibitionism, scopophilia and their combination in transvestitism.

Hora[17] relates the transvestitism to a combination of fetishism and female identification where the fetishism represents an ego defense in denial of castration through refusal to acknowledge that a female has no penis, and the female identification signifies a break-through of the original impulse, "I love my mother in me." This can more appropriately be related to an introjected object rather than to identification. He notes the exhibitionism of the penis symbol and that there is an instinctual diffusion leading to erotization of every element of the condensed overdetermined symptom. The transvestite act is further defined as representing intercourse with the mother, and the masochism denotes castration as punishment for incest.

Fenichel[14] also pointed out that just as there is an identification with the mother, there is also one with a little girl, an identification which is designed to secure for the subject all the advantages of a regression into early childhood.

The interrelationships between exhibitionism and scopophilia are very apparent in the transvestite in whom the motives of the exhibitionism are a denial of feelings of castration, reassurance against castration fears and an invitation to the object to gratify reciprocally the agent's scopophilia. Saul[18] noted that "exhibi-

tionism in dreams of being admired is often a direct expression of an infantile wish for love which takes this form rather than for example being fed, protected, snuggled or loved genitally." Scopophilia can express curiosity, both sexual and other, and may often have components of envy or of hostile oral incorporation. Both scopophilia and exhibitionism are manifestations of early childhood, when they are allowed free expression.

The following case presents and illustrates the significance of the foregoing review and certain other theoretical postulates. It is to be emphasized that the review draws attention to the defenses against the threat of castration and its associated anxiety. The answer to the *wish* for emasculation must be found elsewhere. The data in the following report were obtained solely from the patient's historical reconstruction and from behavioral observations while he was in the hospital.

Description of Patient

The patient is a tall, medium-built person who, when first seen, was dressed in a tailored female suit, wore make-up, had his hair in bangs or what might be termed a modified page-boy hairdo and wore low-heeled shoes. He appeared fairly composed, only minimally anxious, was co-operative to the point of oversolicitousness and appeared mildly depressed. His gestures and mannerisms offered a combination of masculine and feminine attributes. They were exaggeratedly dramatic and were always carefully controlled and executed. For example, when he lighted a match, the procedure consisted of striking a match attached to a book held in the same hand, an obviously exhibitionistic but masculine maneuver. When asked about this "trick," he remarked that he had learned it in the navy and thought it would be useful should he "ever lose an arm." His speech was controlled, deliberate, and demonstrated a marked overintellectualization, with the proper use of many polysyllabic words, which were, however, often mispronounced. He was obviously above average in intelligence. Though denying that he had any personal problems, he was obviously controlling the expression of much anger toward his wife, who had instigated his hospitalization. He walked with a rather deliberate and swaying gait. His facial and eye gestures were of feminine quality.

Family Background

Father. The patient's father was approximately 45 years of age when the patient was born. He was a house painter and decorator who had been a sailor for 14 years around the turn of the century. He was a "hail-fellow-well-met," working only periodically and continually faced with eviction notices and similar financial problems. A "goodtime Charlie," he used money for less than essential things, for example, to buy a "phonograph rather than shoes." He indulged in alcohol and was frequently drunk. His social group was the group at the tavern where he spent most of his time. He was the "underdog" in the marital relationship, losing most of the innumerable arguments which took place. At frequent intervals the father became very hostile and strict, and would have a furious look on his face. His temper did not, however, lead to physical punishment except once when the patient, then six years old, was the recipient of a "good old-fashioned fanny reddening." The only other physical punishment recalled by the patient was at the age of seven when he had his "ears boxed" by his mother.

Mother. The patient's mother was born in Denmark. When she became illegitimately pregnant with her first child she was sent from her home. Concurrent with this, her sister, also illegitimately pregnant, was sent out. The child born, half-brother of the patient, was the oldest sibling in the patient's family. His mother had been married once before her marriage to the patient's father. In her first marriage, she gave birth to two other children, a boy, 13 years older than the patient, and a girl, 11 years older. The first marriage ended with the death of her husband from pneumonia, and she subsequently married the patient's father. She was a rather heavy, though not an obese, person, ambitious, much disappointed in marriage, and continually attempting social betterment. On a number of occasions she was described as "regal" in character and "the epitome of what a lady should embody." During the frequent periods when his father was unemployed, the patient's mother supported the family as a seamstress. While the patient sympathized with his father, he went to his mother for protection, because "she was the stronger parent." She seemed especially concerned with rules of etiquette. The patient was 12 when she was killed in an automobile accident.

His parents had frequent arguments which, when intense, would be in Danish. The patient recalls feeling depressed and hurt dur-

ing these scenes. He was always aware of his mother's dominance and authoritarian position. He declared that she lacked positive feelings, in contrast to his father who at times was rather demonstrative, showing much affection. Both were stubborn though not "coarse." At times, he felt his mother's demands upon his father were unreasonable. His mother apparently would not attempt any overt disciplinary action, but would threaten the children with telling their father if their behavior was disapproved. His father's discipline was in the form of menacing tones which the patient feared and dreaded, and which would make him feel like "crawling into a hole"—thinking his father's voice to be worse than corporal punishment. He often sensed impending violence from his father and often fantasied the possibility of being choked by him. He described his "father's glare" and feared the father would lose control and do bodily harm without intention.

Siblings. There is some question as to whether a younger sibling was born after the patient. The patient recalls vaguely some discussion about a stillborn child for which a name was supposed to have been designated but no verification of this has been found.

1. *Sister.* The patient had one full sibling, a sister, 19 months older than he. He described her as "mentally retarded" and as having completed no more than the fourth grade of elementary school. As a result of sexual promiscuity, she was in frequent difficulties with various authorities; and about six or eight months following their mother's death, she was sent to a state school for girls, because of this promiscuity. She remained there from the age of 14 to 18. She then returned home but remained only a few months before marrying. The patient said that he got along very poorly with her and felt much contempt for her, describing her as "a clumsy person without a sense of co-ordination and unable to hold a job." He felt she was very unsympathetic, that she was often angry, and that she frequently reported mischievous behavior on his part to their parents.

2. *Half-brothers.* The oldest child in his family was the half-brother who was the result of the illegitimate pregnancy. He was born in Denmark and was 15 years older than the patient. The patient had no conscious memories of him and described him as a "remote mystery." He apparently served in the ambulance corps in World War I and was "shell-shocked." He committed suicide in New York many years ago. The patient recalls seeing pictures

of him, in which he appeared as a debonair, dashing man who looked swank in his uniform and wore a mustache. One photo which remained vivid in the patient's mind was of his half-brother, sitting on a tombstone in Russia surrounded by a group of nurses.

The next oldest child was another half-brother, 13 years older. He was described as "mother's favorite," bright, capable and dominant. He left school at the age of 15, precipitating a series of events which had led to the patient being placed in a foundling home when two years of age. There was much friction between him and his step-father. He ultimately left home and joined the coast guard.

3. *Half-sister.* A half-sister was 11 years older than the patient. She was an attractive, intelligent girl who "was a joy of life." The patient, as a young boy, was envious of her appearance. She had a "stormy adolescence because it occurred during the Jazz-age" immediately following World War I. When the patient was about seven years old, she married, being pregnant at the time. The patient says that he was shocked at her being pregnant and remarked that "she was forced to marry." She died of tuberculosis at the age of 22. She had two children at that time, the younger being a favorite of the patient's.

Childhood and Adolescence

The patient was born in 1915. The youngest of the five children, he spontaneously referred to himself as a "twilight" baby since his parents were both over 40 at the time. There is some question whether his mother had hyperthyroidism, either during or before the pregnancy, and some thyroid surgery may have been done around that time. He was told she had had "dropsy" while gravid with the patient and had almost died during labor.

The patient's first report of his earliest memory was referred to the age of four. He remembered being alone, as his parents put him to sleep and went out. That night he had a nightmare in which "the house was infested with rodents." Other memories around this age included playing at tea with a sister; and to this he associated the thought that they must have had their picture taken. From the age of four or five he experienced a sense of envy of girls and was particularly jealous of his half-sister. In association to that period, he related a memory of extreme resentment at having a haircut. He wanted long hair like his sister's. On one

occasion, while having a haircut and crying a great deal, he noted that "some one snapped a picture."

Subsequently, in the anamnesis he recalled an earlier memory than these; it was of an episode in which he got involved in a fight with two other boys. He described himself as always being a rather timid person, but because the two boys took away his red wheelbarrow, a prized possession, he fought with them and got a bloody nose. His favorite toys were Erector sets and Tinker Toys, and he was particularly fond of "expensive and shiny toys."

Later on in the anamnesis, he recalled that he must have been in an orphanage for a short period when he was two or three years of age. A screen memory involved his going along a brick wall or fence. His mother apparently had left the family after arguments about her second son, who had just then quit school and gone to work. This child, the mother's favorite, had had frequent altercations with his step-father, the patient's father. The patient felt that his father must have been jealous of this boy, and supposed there were many scenes in which his mother would accuse the father of being partial to his own children, the patient and his sister. This time, the half-brother went to another city, and his mother followed, leaving the patient and his sister with their father. His father took them to the same city, where they were put in a foundling home for a few months and then placed in a foster home for a short period. The patient's memories of the foster home were that it was a very "happy home" with an atmosphere of comfort. His parents became reconciled and returned to their home town, but within a short period moved to another city.

The loss of his first tooth at the age of six was recalled in association to a dream during the hospitalization. He also said that he remembered the loss of every tooth he had ever lost, as teeth and facial configuration were always very important to him. He associated the feelings of losing a tooth or having one pulled out by a dentist as exactly the same as the feelings and anxiety connected with haircutting.

Much argumentation and hostility took place between his parents, to which the patient reacted by feeling unaccepted and angry, and having frequent impulses to run away from home. He sensed continuous strife in the family and felt there was little comfort at home, and little care from his parents. He was particularly

concerned with violence and anger, and would become extremely anxious and terrified by any display of it. He recalled a scene when he was seven in which three men kicked "the tar" out of another man lying in the street and then tried to run him over with their car. The patient recalled being so terrified and visibly shaken that he was given some whisky as a sedative when he came home.

His mother had a continual desire for different and better apartments, and, because of this, the family moved from one apartment to another about every six months. This necessitated frequent changes of schools, and readjustments to new neighborhoods and peers. He had a coaster wagon which was used as "a moving van," and recalled feeling as if he had spent his entire childhood continually pulling it. While his mother was continually looking for better apartments, the family frequently ended up in unheated cold-water flats. He was resentful and angry each time the moving problem recurred; he said that, just as he was getting acquainted with new playmates, the family would be moving again. Things would hardly be unpacked when they were once again being packed for a subsequent change in residence. During this period, he had many anxiety dreams involving falling from high places or cliffs.

He was very passive and experienced loneliness, distance and nonparticipation in the activities of his peers because he "never got to know anyone." He insulated himself in a dream world, involving boyhood idols of popular fiction.

When he was 12 years old his mother was killed in an automobile accident, as has been noted. The patient, his father and sister were also involved, and his sister suffered a fractured skull. The patient himself was unconscious for a few hours, and his father suffered minor injuries. The father decided never to drive a car again. The patient recalls being "in a state of shock" when he found out shortly after gaining consciousness that his mother was killed. He described his feelings as being those of a person "detached" from himself, as if he were suddenly standing outside himself. He said that he never really realized the loss of the "maternal influence" until he was 15 or 16. He subsequently related that he felt extreme loneliness with depression, and felt that there was no one to be dependent upon, and no one to answer his questions.

His prepuberty years were frequently described as a time of feelings of withdrawal, autism and involvement in reading, though this situation changed after the death of his mother. He described his relationship with his mother as a *"laissez-faire"* one in which mother would leave him to himself. He felt as a child that he had no goals, and he just took life as it came. He noted that following his mother's death, with the stabilization of the moving problem, "with the planting of his feet in one place," he changed from being a shy, withdrawn, autistic person, to an active, aggressive, gregarious person. His preoccupation with books and his extreme autistic behavior were gone completely.

He had very few friends, and he continued to have an aversion to violence and fights. He had experienced much anxiety when attempting to enter into games with other children and had frequently withdrawn because of transvestite impulses. He was particularly abhorrent of games involving close physical contact, and was continually preoccupied with the need for denial of any hostile or aggressive impulses. He would fantasy acts of heroics, involving exploits of the sea, and at other times would fantasy a "feminine counterpart," involving a woman of "great grace and charm, who was a *femme fatale.*" In his fantasies, he frequently identified with women celebrities of the day. He felt incompetent in the masculine role and felt this was because he was nonathletic and that, therefore, other boys "didn't admire" him. He became very active as an adolescent in a community settlement house and from 15 to 17 was especially interested in Boy Scout affairs. He became troop leader and scoutmaster, found the job very flattering, and expressed much satisfaction at working with younger boys.

Following the death of his mother, the patient lived with his father alone in a three-room apartment, sharing the same bed until the boy was 17. He denied any overt sexual acts with his father. With marked exuberance, however, he announced proudly that his father had snored like six fire engines. On one occasion, he described the nature of their relationship as "batching," with the patient functioning as cook.

In 1934, the patient's father remarried and the patient immediately left home. He said that he had been angry and that he had strongly objected to his father bringing a woman into the house. He characterized his stepmother as an alcoholic shrew who used

foul language. He felt strongly rejected by his father, and angry toward this woman who, he said, tried to be motherly to him but put on a performance like a "class B movie." He also felt that he was now bad company for his father.

Education and Occupational History

At the age of five, the boy had entered kindergarten; he recalled that whenever the children had to line up according to sex, he would always find himself by choice with the girls.

In elementary school, he continually sensed that he was "a backward child" and was not a particularly good student, although he was obviously very intelligent. The frequency of moving led to his repeating a grade.

By the age of 14, as the result of longer living in one locale, he had made up the lost grade and entered junior high school, where he did well and graduated from his high school in the upper 25 per cent.

His ambition was to obtain an Annapolis appointment and have a naval career. His fantasies frequently involved storms and tranquilities of the sea, and he admired and respected "the beautiful strength of the sea." His high school studies were aimed toward a naval career, and he made one unsuccessful attempt to get to Annapolis.

When he was 16 and in his third year of high school, he quit school and left home to join the CCC. His reasons were that it was depression-time, his father was out of work, there were no funds available, and in general, things were rough. He remained in the CCC for only three months, receiving an early discharge because of frequent arguments and fights with a group of boys. He said that these "boys" were ready to commit murder, and that he was unable to turn his back without six or eight of them jumping him. He returned home and finished high school.

Immediately following his father's remarriage, the boy left for the west coast, traveling on freight trains and depending for food upon the generosity of other hobos. He went to Seattle, San Francisco, and Los Angeles, all the while looking for work without much success. During this time, he was dependent upon various people for sustenance except for occasional jobs. He tried to get into the navy, but was not accepted, since very few were being recruited at that time. On receiving a letter from his father that recruiting

was going on in his home town, he returned there to attempt an enlistment. He returned by way of a refrigerator car, and described extreme deprivation and perilous experiences on this trip. In 1935, he finally joined the navy. His rationale was the curbing of his transvestite urges, besides economic need, although he had always been interested in the sea for other reasons.

He had much difficulty in accepting orders in the navy, did not enjoy having others make decisions for him, and constantly sought justifications for the orders he received. He looked upon regimentation and the loss of individuality with a great deal of scorn. He characterized himself as a griper. His transvestite urges abated for a few months. He found it difficult to relate to other sailors, because they constantly spoke of "lewd sexual activity." Though frequent homosexual overtures were made to him, he refused them all. His transvestite urges were occasionally gratified on shore leave.

Shortly after his marriage, which took place during his second year of enlistment, he tried to get discharged from the navy but the request was refused. He attempted to force the navy into discharging him by breaking regulations but was unsuccessful. He finished his enlistment in 1939 and returned home.

He then worked at various jobs, including office work. His longest was as a railroad conductor for 10 years, a job he finally lost because of his transvestitism. He found it increasingly difficult to hold any job and received much ridicule from fellow workers who noted his effeminate behavior. In card games with fellow employees, such remarks as "She wants a card" were made in reference to him. He experienced many episodes of depression and increasing humiliation and ultimately was unable to leave the house for work. Intermittently he found some office work, but because of various evidences of transvestite gratification, e.g., traces of make-up, long hair, etc., he was repeatedly discharged. His longest period of employment during the past few years was about 13 months. As an example of his difficulties, he was recognized, when he was dressed in female clothing, by officials of the railroad he had worked for. This occurred on two occasions while he was riding a commuter train.

Following his return from Europe, he found a job as a secretary (dressed as a woman) near his wife's place of employment, and

they used to go to work, eat lunch and travel home together. He worked there until admission to Elgin (Ill.) State Hospital.

Marital History

While in the navy, the patient had corresponded with his wife-to-be and had seen her on occasional leaves. He had known her for some years, but had never been seriously involved with her. After he had been in the navy two years, she wanted to get married, although he didn't, since he had to serve two more years. One day she came to his naval base, and they were married rather hastily, he feeling pushed into marriage, although he was "very much in love with her." Following marriage, he tried various ways of getting extra leaves to see his wife and at times would alter record books to acquire more leave days. On one occasion, when home on leave because of his wife's brother-in-law's funeral, he decided to use that as an excuse to remain home and did so, going AWOL for 10 days. He said that he could always "talk his way out of things," but upon return to base he was placed in the brig for 60 days. He maintained that he would have taken three times 60 days of punishment, in order to stay home those extra 10 days.

Shortly after he was discharged from the navy, his wife became pregnant for the first time and because of "financial difficulties" an abortion was induced. This was, according to the patient, at the insistence of his wife. In 1942, however, their first child, a son, was born. The delivery was difficult and long, and he first walked the floor with her, then stayed with her during this, and all subsequent deliveries. The pregnancy had been unplanned, as were all the pregnancies. He expressed much concern about his wife during labor and he had experienced nausea, vomiting and abdominal pain at times during the pregnancy. For a short time afterward, he felt "left out and neglected," as his wife's attention was focused on the child. During this and subsequent pregnancies he experienced "envy" over her pregnant condition. There was no change in his transvestite impulses before the birth. He felt proud of his son, "did much bragging," and declared with glee that he did his share of diaper washing, formula fixing and night walking.

Approximately 16 months after the birth of the first child, the second child, a girl, was born. An abortion was attempted unsuc-

cessfully with this pregnancy, as with the next one, by means of hot baths, castor oil and other methods. The patient did not share his wife's desire for abortions and wanted a large family. The third child, a girl, was born 16 months after the second. Following this, contraception was practised.

The patient says that he has always attempted to keep his transvestite urges apart from his children. He feels that he has always been extremely devoted to them, spends much time with them, and looks upon himself as their spiritual guide. When he returned from Europe, his children were somewhat "shamefaced"; but this was, he said, because his wife had been going out with other men, and his children felt as if they were sharing some guilty secret. The children have always referred to the patient as "honey" and more recently as "aunt." Any attempt to refer to him as "Dad" early in their childhood was summarily prohibited, as he felt that ultimately he would have to dress completely as a woman and wanted no difficulties about this. He always wore some vestige of female attire, and his children were aware of this from the very beginning.

On occasion, when his children showed obvious confusion about his female attire, he talked to them about his difficulty and remarked that they were always sympathetic and understanding. In his discussions with the children about transvestitism, he emphasized that no two human beings are entirely alike and that there were differences between the sexes. He took them to farms to show them the births of farm animals. He explained to them that in each man and each woman there is a remnant of the opposite sex, and that the balance between the two is not always at the same point. He stated to them that some men, such as he, had an excess of female characteristics; and when the "Christine case" was publicized, he told them that his problem was similar. They were told not to think of this with shame, and his condition was described as analogous to congenital heart defects, "hunchbacks or club feet." He explained the problem to them in terms of hormones, and ductless glands, declaring that emotions are kept in balance by the ductless glands, among which are the ovaries and testes, each secreting male and female substances. In his case, he explained, the excess of female characteristics was due to a hormonal imbalance.

Before a move to a new community, his children were often ridiculed because of their father, whose transvestite problems were

known to the old community. With their moving, their seclusion was broken, and the children could bring in playmates to whom they would introduce their father as "aunt." He was aware that his transvestitism might have some adverse effects on the children, and he was particularly concerned about his son. Any masculine attributes in the boy were encouraged by the patient. He was also concerned as to what effect his transvestitism would have in terms of his daughters' relationships to men, and postulated that ultimately this could lead to renunciation of all men on their part. He frequently told his children that they were not seeing a normal man or a normal marital relationship, feeling that this eased them of some anxiety, and gave them some understanding and also brought him, in return, some sympathy.

Sexual History (Including Transvestitism)

The patient relates as his first transvestite urge, feelings of envy for girls that he had at the age of four. Envy was particularly felt toward his half-sister. She was a very beautiful girl, and he felt very envious of her beauty. He denied any conscious memory of seeing a nude girl until after he married though he recalls knowing, at the age of six or seven, that there was an anatomical difference between the sexes. Personal privacy was always stressed in his childhood, with a mid-Victorian air.

His first transvestite experience was around the age of six or seven when he wore, as a nightgown, an old dress belonging to his sister. This was put on him by his mother "as a nightgown," and he experienced much pleasure. He recalled looking at store displays of female clothes and associated with them strong feelings of pleasure. Around the age of eight or nine, with genital growth, he began experiencing increasing anxiety. As the genital sensations increased, he found himself revolted at the thought of, or discussions of, sexual topics, feeling that sexuality and genitals were bad and dirty. Any increase in masculinity was something dreaded, and he often fantasied that, by some miracle, he would get more feminine characteristics. He associated his first consciously felt dislike for his genitals with his first erection. He felt that, up to then, he could deny the presence of his genitalia but that with an erection this was not possible. He experienced distinct disgust and shame, and "wished that the damn thing would fall off."

His first decision to wear girl's clothes occurred at the age of 10 when he found an old dress his mother was going to discard. This was a dress that had belonged to his sister. He hid it "in a tobacco box" and put it on at frequent intervals, usually dependent upon the frequency of genital sensations. He noted that this dress acquired a particularly offensive tobacco odor. Any tendency toward sexual thoughts, stimulation or gratification, especially when an erection occurred, was immediately accompanied by transvestite urges. He began to masturbate concurrently with the beginnings of his transvestite gratification. Transvestite gratification was always associated with masturbation, with most emissions going into the apparel he was wearing. When the patient was asked whether the transvestite urge preceded or followed the genital sensation, he remarked that it was like "strawberry shortcake, that one could taste it before eating it."

In the course of the anamnesis, he recalled an anxiety dream when he was about 11. In this dream, his mother's leg broke off and he noticed that there was no blood. He recalled feeling horrified and awoke crying. He associated this to the probability that he had seen naked mannikins in store windows, and recalled admiring his mother's legs because she wore smooth, silk stockings. In response to a question as to the possible meaning of such a dream, he added that his mother was more dominant than usual at that time, and that at that time, (around 1925 or 1926) women's legs were becoming exposed with the trend to shorter dresses. By comparison, he remarked, men's legs were bony, asymmetrical and hairy.

He noted that his transvestite episodes and gratification would occur in cycles similar to women's menstrual cycles but that they also depended in part upon possibilities of not being caught.

He recalled one homosexual experience while in the Boy Scouts involving himself and a Scout leader who fondled his genitals. This was the only overt homosexual experience that he related.

During his adolescence, he lived with his father alone, as has been related, and would gratify his transvestite urges secretly. On the one occasion that he was discovered, his father warned him, but there were no retaliatory measures. The patient wore dresses belonging to his sister, who was at the state school for girls at the time. He recalled a recurrent dream of "having intercourse with her" and said he had nocturnal emissions in association with

it. However, he expressed marked contempt for her, saying that she was clumsy and stupid. His associations also led to the statement that her clumsiness reminded him of his father, in that they had an identical gait.

His attitudes toward sex have always been associated with a rather strict prohibition of premarital sexual activity. He was extremely defensive about any denigration of, or jesting about, sexuality. He was particularly disgusted with any concept of intercourse apart from an "over-all love," looking upon it when separated as a manifestation of "bestiality, greed, and similar to instincts related to infrahuman behavior."

His fantasies since emasculation have involved only men as love objects; and for the two years preceding the surgery, during which time he dressed only as a woman, he frequently fantasied love affairs with handsome men. Subsequently, in the anamnesis, the patient revealed that in the past he had often experienced affectionate admiration for effeminate and good-looking men. He recalled in particular seeing a boy at work who reminded him of a Greek god and who stimulated marked genital sensations. As he talked about this in the interview, he noticed spontaneously that he had just experienced genital area sensations.

In the early phase of his naval enlistment, the transvestite urge was minimal. Later it returned in strength. His major complaint about his enlistment was that sailors would monotonously recount sexual activities. He considered this to be in bad taste, disgusting, and nauseating, and he was offended by the thought that women were being maligned. His one and only attempt at premarital sexual intercourse was on a shore leave when his buddies insisted he accompany them to a house of prostitution. Only by getting drunk, could he summon sufficient courage to go. He had no recollection of the event except that he ejaculated before intercourse. When there was an increase in his transvestite urges while in the navy, he would, on shore leave, buy some feminine undergarment, rent a room, wear the garment and masturbate.

Following marriage and discharge from the navy, the tranvestite impulses increased markedly, and he began wearing some piece of feminine apparel most of the time. While working, he wore feminine undergarments under the usual male clothes. Only when at home or with his wife would he completely dress himself as a woman. Sexual intercourse took place, with the patient putting on a

woman's nightgown, wearing lipstick, and assuming the succubus position with the wife astride. Without wearing women's nightclothes, he found it very difficult to maintain an erection. He experienced premature ejaculation, and never assumed the male role in intercourse. Following intercourse, he thought of transvestitism and of wanting to be a female with extreme disgust. This reaction would disappear within 30 minutes, and transvestite urges would reappear. When his wife was pregnant, he experienced distinct envy over her reproductive capacity, and would have fantasies of being pregnant.

His wife accepted the patient's wearing of feminine attire at night but was ambivalent, according to the patient, when he wanted to wear women's clothes more frequently. His wife would not permit any wearing of feminine apparel for periods up to two weeks, then suddenly would allow it, and would participate to the extent of bringing a particular garment to him, dressing his hair, putting on his make-up and performing related activities. She would then relate to the patient as a "girlfriend." Between these gratifications, he experienced marked anxiety and strong impulses for transvestite expression. He felt much hostility, which was always suppressed; and he characterized his wife, during the intervals of nongratification, as a stone wall. Attempting to rationalize his impulses to his wife, he would plead with her to allow gratification. He analogized his feelings to those of a person who had "seven thousand itches that could not be scratched"; it was "like a hunger I could not gratify." He manifested depression and withdrawal and became morose until his wife would allow gratification. He never put on female outer garments without his wife's consent, even at home.

He has felt extreme anxiety when wearing anything but complete feminine attire, and has had frequent dreams involving the wearing of women's clothes. For the past 12 years he wore his hair unusually long; and at work, while wearing male clothes, he was noticed as very effeminate.

In the past three years, he says his sexual desires were less frequent, and intercourse occurred less often. He described his wife as a frigid, Victorian person who is unemotional throughout sexual intercourse. Following his return from Europe and the emasculation surgery, he slept with his wife; and during the ensuing few months, his wife on occasion would fondle the patient's

perineal area around the stump of the amputated penis until he would reach orgasm with emission of a clear fluid. He thought that if he ever left his wife, he would want vaginoplasty performed (to which his wife agrees) and would like to be changed legally to a woman. He has fantasied marrying an older man or widower, saying that he wanted to make this type of man happier; and he was hoping to find a man who would want such a relationship with a woman, with reproductive capacities not being necessary.

Later History

Following the birth of his youngest child, he noted that his transvestite urges had become more obsessional. He consulted a physician who started him on estrogen preparations which subsequently led to breast enlargement. He continued to see this physician periodically up to two or three years ago, at which time he was advised to have the emasculation. This coincided with the time during which much publicity was given to the "Christine" affair with the publication of the case.[1] On one occasion, in order to gratify his transvestite urges, he rented a hotel room. He then called his family physician, a qualified surgeon, and asked him to meet him there to demonstrate his tranvestitism and to request an emasculation—which was refused. The patient experienced acute panic when threatened with arrest after the visit. He then resolved to stop the transvestitism and gave himself a "haircut as the hair had been allowed to grow inordinately long." That night, his wife swore out a warrant for his arrest for disturbing the peace, and he was taken into custody by police, and later to court where he was released. His wife told him that she was too afraid of him to come home. He became depressed and agitated, and threatened that, if she did not return home, he would commit suicide. When she refused at first, the patient took a hunting knife while home alone and prepared to "plunge it into his breast." No actual attempt, however, was made, and his wife returned home shortly. The officials of the community in which they lived, however, warned the patient not to appear in public dressed as a woman and the family life from that point on became more seclusive with almost complete curtailment of social activity.

He read extensively on the subject of transvestitism; and in 1953 he began to formulate specific plans for emasculation. In

1954, he began communication with physicians in Europe for purposes of surgery.

Two or three years ago, he began to wear female clothes exclusively. He worked as a "female" in various offices, but was forced to leave all the jobs. With the wearing of female costume, he experienced no more anxiety. However, he noted that his relationships with his wife were becoming more distant, with both the frequency of sexual intercourse decreasing and his wife becoming increasingly withdrawn and apathetic. He felt deprived of her affection and irritated at the life of recluses they were all living so they sold their home; moved to another community and bought a cheaper home and thereby saved some money for his proposed trip to Europe.

In the fall of 1955, they moved to the new community, where the patient was addressed as "aunt," by his children and neighbors. The patient and his wife became known as sisters-in-law and attended various women's activities together. The neighbors were told that he looked very much like a brother (the fictional person separated from his "wife") and parenthetically noted that "when he and brother would dress in the clothing of the opposite sex, they were completely deceptive." They were accepted in the community, and apparently the family life ran without incident as the patient continued to gratify his transvestite needs completely. This situation became attended by a marked ambivalence on his part about the proposed surgery. The plans were made, however, primarily due to his wife's insistence. On one occasion, he even proposed that they move to California where he would attempt a male role again; but this proposal was declined by his wife, who said that she didn't want to live with him as a male. He stayed at home doing "the housework," while his wife worked.

In September 1955, his wife became pregnant again. As they now rarely had intercourse, the patient questioned the paternity but quickly reassured himself that he was the father. His wife insisted on having the pregnancy aborted and threatened to kill herself if it wasn't. Though he was against it, he acceded to her wishes and paid for an abortion with money saved for the European trip, thereby postponing the project.

In early 1956, his wife began to arrange boat passage for him. His ambivalence remained, and he remarked that he could abandon the whole idea any time. His wife, however, continued to reassure

him that they would still remain married and live together following the emasculation. They, in fact, contemplated "double dating," with the two of them dating two men. They agreed not to have a "broken home" or a "step-father." There was much difficulty in arranging boat passage. However, nine days before his actual sailing, they were notified of a cancellation, and his wife insisted that he leave immediately for Europe.

He wrote his wife often, reporting that while his letters to her were extremely warm, hers gave a feeling of distance and apathy. During this time he sensed a possibility of losing his wife, and became more hesitant about the surgery, feeling that his wife had promised more than she would fulfill. He wrote her on many occasions that if there were no positive feelings and no positive reassurance on her part, he would return to the United States without the surgery. Once he wrote her that he had decided to return home without it and to resume the male role. She sent a cablegram immediately, stating, "Go through with it; you're welcome home." A letter followed in which she reassured him that they'd go on living together, but that she was unwilling to set up a normal marital relationship with him. She also refused to give up her job. He continued therefore with the original plans. His only consideration was whether his wife would accept him or not.

He saw a psychiatrist, who interviewed him and gave him some psychological tests, including a Rorschach. The psychiatrist pointed out the seriousness of his decision and the finality of surgery and suggested that the patient reconsider. However, he also is reported to have said that there was no cure for transvestitism and that surgery was the best way out. The psychiatrist received letters from the patient's wife in which she argued that surgery was needed and freely gave her consent.

While in Europe, the patient lived with extreme frugality. There was no social life, his budget was meager and he described himself as the tourist who did "less touring than anyone ever." As the patient had insufficient funds, the surgery was done on "credit," because the physician felt the operation to be "of the utmost importance." The patient had an emasculation in the summer of 1956, but although he desired vaginoplasty, none was performed. The immediate postoperative genital sensation was that of an erection. This "phantom erection" was described as "too long and too intense" and was at times painful. The patient also described "feel-

ings of an awareness" bilaterally in the lower abdomen. He patient fantasied that they represented an "ovarian sensation." These sensations decreased in frequency until they disappeared a few months later.

When the patient returned home, he found that his wife had been going out with another man and also had asked for a divorce for "income tax purposes." She allowed him to live in their home but not in the same room with her. He experienced extreme jealousy and depression. He analogized the situation as that of "taking candy away from a child; it just intensifies my cravings a thousandfold." Though able to verbalize some feelings to his wife he was unable to verbalize anger, and felt that she was going to "drive me off my trolley." His wife stopped seeing one particular man, but on a few other occasions had some men friends at the house to visit. She continued proceedings for divorce against the patient, but the patient refused to agree to one, and the plans were finally dropped.

A few months after his return from Europe, the patient was abruptly taken from his work by police on a warrant for his arrest, on complaint of his wife. The previous night, they had slept together and displayed a great deal of mutual affection without any hint of what was coming. He was committed to a state hospital and referred, a few days later, to the University of Illinois Neuropsychiatric Institute.

Medical History

The patient's history of physical sexual development was normal except for the following: (a) Beard formation did not begin until he was 16, then the beard was light and did not require shaving more than two or three times a week, (b) his pubic hair was female in distribution and did not appear until he was 15. Otherwise, his puberty was normal with no pubertal gynecomastia. Since the beginning of estrogen therapy, there has been breast development and some increase in fat over the hips. There was no history of hypothyroidism.

Features disclosed by the physical examination were: (a) male hair distribution of the scalp, (b) female hair distribution of the abdomen and pubis, (c) a moderate increase in fat over the hips, (d) a male carrying-angle to the shoulders, (e) minimal to mod-

erate enlargement of the breasts, (f) a deep male voice, and (g) equivocal periorbital edema.

The laboratory results included: (a) chromatin negative nuclei in buccal mucosa cells, (b) 17-ketosteroids excretion, 11 mg. 24° and 10 mg. 24° (two determinations), (c) BMR —13%, (d) I 131 uptake 23.2% (euthyroid range 10-40%). Liver functions, urine, the serology, hemogram, NPN, FBS, and CO_2 were all normal. Other physical features included the presence of a small urethral opening representing the only remnant of the penis; this is the former penile urethra. Below this, suture marks were still visible where the perineum had been sutured rather tightly, and the raphe remained apparent. There was absolutely no vaginal opening. The pubic hair distribution was that of a female.

For the past 15 to 20 years the patient has experienced intense pruritus ani et scroti, which would disappear spontaneously with the wearing of female clothes and has not returned since the emasculation. The implications of this relationship have been the subject of a separate discussion.[19] In addition to the pruritus he had bilateral back pain which disappeared spontaneously with the surgery.

Approximately five years ago, the patient had noticed a pea-sized growth on one of his testicles. He declined medical attention, as he hoped it would be a tumor and ultimately necessitate castration.

Dream Material

A predominant homosexual theme occurred in many dreams which were often accompanied by nocturnal emissions. The homosexual partner was often seen as an older man, at times associated to the father. The homosexual actions were often fairly undisguised with the patient having intercourse "vaginally" or, more symbolically disclosed, anally. Anal activity of a pleasurable quality recurred, often showing strong coprophilic impulses. In association to one dream, the patient spoke of his pleasure in smelling his hands after cleansing the anal region following defecation. Themes of violence were fairly common, with the sadism most often involving anal and genital qualities, with oral sadistic fantasies less frequent though present. A few dreams dealt with themes of castration, which were equated with ridding the self of noxious properties. Procreation fantasies represented another recurring theme in both the dream material and consciousness.

In many dreams, the patient alternated in sexual roles, at times being a woman, at times a man, demonstrating thereby strong bisexual impulses. The infantile wish to be fed, feelings of being rejected, and depression were often associated to, although their occurrence within the dream material proper was not frequent. The feelings of impoverishment, loneliness, and emptiness were commonly experienced in the dream work. Clothes and especially uniforms, played significant roles. Policeman's, nurse's and sailor's dress recurred as significant factors in the dream recall.

Summary of Psychological Examination

The patient is of superior intelligence. His intelligence is used in a highly exhibitionistic manner, demonstrated most vividly in the elaborate vocabulary he employs. He is more concerned with creating an impression of *savoir-faire* than in the vigorous pursuit of intellectual goals. In spite of a wish to be atypical in thought and action, his ideas and methods of thinking are considerably more humdrum than he realizes. There is a noticeable lack of ingenuity in problem solving, and he is content to rest passively within the boundaries of a situation without seeking to explore ramifications. He is a highly egocentric person, who stresses his great sensitivity, but is unable to adapt successfully to external pressures. In actuality, his feelings appear to be a mockery of the real thing. Rebellion is mainly ideational, since he lacks the strength to try to solve the problems which he feels have been forced upon him in the first place by society. He must deny that he bears ill will to anyone in particular. Society, however, should change to meet his needs. Identification is strongly feminine, although one should emphasize the infantile quality of this identification. Thus, this individual is most concerned with the external trappings of femininity, those which he can learn by imitative action. There is no noticeable conflict on his part over his impulses to action. They are held in check mainly by a society that prohibits and not by his own doubts as to the proper course of action.

The patient feels controlled by maternal figures and has a need to distinguish between the dominating female and the young idealized female who is vibrant fresh and, in actuality, devoid of any characteristics of strength. Such idealized females are good, like the heroines of Dickens' novels. In much the same way, the pa-

tient is attracted to the idealistic young male who, too, has cardboard characteristics. The patient sees himself as essentially devoid of any parental or marital role; as he sees himself, he is, rather, just one of the family.

The diagnostic impression is a character disorder. The dominant characteristics are the infantile emotionality, aberrant sexual development, and overinvolvement with—and overuse of—verbal communication.

Formulation and Summary

In this patient, the ego appears fixated on an oral and early anal level in an intensely narcissistic individual. In his speech, the properties of control and deliberateness exemplified a controlling and hostile type of oral relationship. The need to control and master his aggressive impulses is seen throughout the history. In childhood, some of his aggressive drives were handled through the muscular activity involved in long walks, which also provided solitude. In childhood, he appeared lonely and had an active fantasy life, in further defense against the anxiety aroused in those interpersonal relationships involving hostility, especially when demonstrated between his parents. This reaction was seen later in the mechanism of flight, when he angrily left his father following his father's marriage—which was interpreted and experienced as rejection by the patient.

The patient's father appeared as the passive subordinate in the marriage while his mother represented a dominating, "regal," obviously phallic woman. The early manifestations of his identification with her were apparent and were exemplified by envy of his sister and by his early choice of "lining up with the girls"—a performance which could be described by the cliché, "If you can't beat them, join them." His passive homosexual impulses are represented in a number of ways. In a few of his dreams, the introduction of a male limb, or a kiss by a man, or even the sight of a man produced orgasm; the men in two of the dreams ultimately were associated to his brother and father.

As an adolescent, the patient had lived alone with his father, and had acted out, in fantasy and transvestitism, a passive homosexual relationship with his father, performing through identification the functions of his mother. The passive homosexual impulses were psychosomatically demonstrated in an extreme pru-

ritus perinei, which started after he left home at 17 and existed when he wore male clothing—at which times auto-erotic gratification was obtained through scratching. The pruritus disappeared while he wore female clothes—at which times fantasies of being loved by men prevailed. His wishes for a homosexual relationship in a passive role were further demonstrated by the supine position which he assumed during coitus. Since surgery he has desired vaginoplasty with hopes of coitus with "older men." There are further implications in the possibility of wishing to give birth to a child, impregnation occurring through anal intercourse. The significance of the psychosomatic disorder has been previously discussed.[19]

The patient experienced pleasure when a sister's old dress was placed on him as a nightgown by the mother when he was eight. Subsequently he used primarily his sister's dress in the gratification of his impulses, suggesting certain erotic relationships to her. The dress was stored in a tobacco box which imparted a "stench." The dress was the object which received the ejaculatory contents. The incestuous relationship with the sister, which in part could represent a displacement from his mother, is seen in the repetitive dream he had involving coitus with her. The sadistic impulses toward his mother were once manifested in a dream in which his "mother's leg was broken off" and which produced feelings of horror in him. In terms of identification with the "internalized aggressor object," self-castration as retaliation becomes very possible. The evidence for this, though certainly not conclusive, is very suggestive.

His early memories included such things as "someone takes a picture of me getting a haircut," loss of teeth, and the incident in which his red wagon is taken and the attempt at recovery leads to a bloody nose. All of these incidents and memories tend to strengthen the hypothesis of marked castration fears.

It has been noted by Payne[12] that the erect position attained in infancy and the erection of the penis have comparable narcissistic values. The body image in this patient was obviously altered by the wearing of female attire and the emasculation. Prior to surgery, while wearing male attire, he experienced lethargy and would walk drooped over. Since surgery, he notes that he walks erect, is able to work effectively and requires one-half the sleep he previously needed. It is as if the body becomes equivalent to

the genital with the brain ("intellectualization") as the central organ; i.e., the libido becomes cerebral, displaced from below (emasculation) upward.

Rado,[20] in an article on bisexuality, points out that the basic problem is to determine the factors that cause the individual to apply aberrant forms of stimulation to his standard genital equipment. He considers the chief causal factor to be the affect of anxiety, which inhibits standard stimulation, and compels the ego action system in the individual to bring forth an altered scheme of stimulation as a reparative adjustment. Both the inhibitory and the reparative processes begin far back in early childhood, leading up to the picture which one encounters in the adult. The reparative adjustment may allow the individual several alternatives of morbid stimulation, or may take the form of a rigid and inexorable pattern on which he depends for gratification. Kubie[21] speculates that "from childhood and throughout life, on conscious, preconscious and unconscious levels, the psychosexual goal is always and invariably to be both sexes, in varying proportions or emphasis." He further adds that an insatiability of this drive exists, with an "orality" which "may rather be the instrument by which the unconscious goal of being both sexes is to be achieved through incorporation of breasts or penis or the body as a whole." The unconscious demands utilized in the attempt at achieving this bisexual goal have one common goal, namely a "magical bodily transformation." Dreams show the wish to be both the woman and the man in the act of intercourse.

In a paper previous to the present one,[18] discussing transvestitism and pruritus perinei, it was concluded on the basis of some theoretical postulates, that these conditions may both represent the handling of a wish for anal impregnation and birth. It may well be that the deepest wish in this patient, and in others with transvestitism, is to bear a child through the act of self-impregnation, thus narcissistically fulfilling the bisexual goal.

However, a further hypothesis, especially referable to the purpose of the emasculation, must be presented. It is the writers' belief that the sadistic impulses in the present case were directed against a mother-surrogate, the patient's wife, who denied him narcissistic, exhibitionistic gratification by her controlling behavior and by bearing him three children who thereby became his rivals.

It is the writers' hypothesis that emasculation in transsexualities may be a defense against homicide directed especially toward the mother figure or mother-surrogates.

To support this, one may point to the following three examples. The first is the case of a homicidal farmer from Wisconsin, who was a transvestite and at one time requested an emasculation. The second is that of a young photographer from Chicago who stabbed a young pregnant woman to death. Found on his person, were photos of himself dressed in female attire, his hands and feet bound. The third case is that of a young man who admitted to multiple female murders and who practised transvestitism for a period.

These views are consistent with the comments by Payne,[12] who speculated that the "primitive sexual aim involved the death of the love object or the castration of himself." Often the fantasy of "having almost killed mother during childbirth" reflects this attitude, and Payne's patient was apparently told by his mother many times that he "nearly killed her at birth." We would tend to agree with Payne's view that the "psychology of the fetishist is dominated by castration fear traced to infantile situations connected with unusual tension of the aggressive impulses inseparably bound up with sexuality." These speculations are further amplified by Payne when she states that "the sexual wishes are not separate from the fulfillment of death wishes, and while it is clear that there is a strong libidinal attachment to the parents it is equally clear that the aggressive component comes to dominate the unconscious situation, and that the inhibitions and restrictions of the ego are bound up with the persistence of an unconscious sadistic aim which involves the destruction of the love objects or his own castration."

The prognosis, psychotherapeutically, for the transvestite or transsexualite is poor on the basis of reported cases. If the writers' inferences are correct, one must seriously entertain the problem of how the needs of the individual and his community are to be best met under these circumstances. One must ask what the best therapeutic and preventive approaches are in these disorders. Of paramount importance, is the need by the community to envision the probable seriousness of excessive crossdressing in children

and to treat intensively children who crossdress, with the hope of neutralizing these processes which have such ominous possible consequence.

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SOME RELATED FACTORS OF THE LSD 25 REACTION*

BY SANTO SALVATORE, M.A.

Introduction

LSD 25 has been used to induce psychotic states[1] and stimulate interest in experimental psychiatry. Wikler[2] has stated that the drug effect depends on the subject's history, the dose and the situational and motivational conditions, and that in the present state of knowledge we must accept the principle of multifactorial determinism.

The most obvious factor influencing the course of the reaction is the dosage administered. However, dosage per se has not received adequate attention. The variation of LSD 25 manifestations, their similarity to "naturally" occurring psychoses, and the opportunity the drug affords for studying depersonalization have occupied a great deal of the researchers' interest. Two exceptions are noted: Forrer and Goldner[3] studied the effect of doses varying from ½ to 6 micrograms per kilogram of body weight on six schizophrenics of poor prognosis and reported the same reaction pattern of increased amiability and release of libido throughout the dosage range explored—with hallucinations beginning at the 1 microgram (gamma) level. Abramson, et al.[4] reported that verbal responses of normal subjects to a symptom questionnaire included items which differentiated subjects receiving 0, 50, and 100 μg. (micrograms) of LSD 25 and that the number of subjects reporting euphoric and dysphoric symptoms increases up to 51-75 μg.[5] In these experiments, euphoria was found to decrease and reach zero with doses of over 100 μg.

Situational factors have found their way into the literature. Agnew and Hoffer,[6] in a paper entitled "Nicotinic Acid Modified Lysergic Acid Diethylamide Psychosis," noted marked shifts in mood when the subject's milieu was unwittingly changed. A study reported by Rinkel, et al.[7] states, in respect to situational factors, that hostile and affiliative relationships were distorted more often than empathic and impersonal relationships. That is, the activities of the observer and of those interacting with the subject influenced the reaction. Dosage and situational factors partially account for

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the fact that summary descriptions of the LSD 25 reaction agree that it is schizophrenia-like but varies in the subcategory of schizophrenia it resembles.

Matefi,[8] in self-experiments, has found the reaction to be of the hebephrenic type; Bercel et al.,[9] studying subjects in a Faraday cage, and reducing external stimulation to a minimum, report predominance of the paranoid type, whereas De Giacomo,[10] using 300-500 μg. in schizophrenics, produced catatonia-like phenomena.

Dosage

The experiments to be reported here were designed by Hyde[11] to yield information as to the effect that social interaction would have on the LSD 25 reaction. The subject was exposed to a variety of social situations during the experimental day, in order to ascertain what influence the meeting of social expectations, other than psychological and physiological tests, would have on the type of reaction. De Shon[12] has classified the LSD 25 reaction as mostly schizophrenic turmoil.

In the present experiment, 120 nonpatient subjects receiving doses of LSD 25 ranging from ½ to 2 μg. per kilogram of body weight, were interviewed by the psychiatrist and assessed for severity of symptoms and psychiatric diagnosis. The relationship of clinical severity to dosage is shown in Figure 1. Six severity ratings were used. Minimal was numerically equated to 0 and severe was equated to 5.

The increase in clinical severity is related to increased dosage. The amount of change introduced by LSD 25 is approximately proportional to the amount of the drug ingested. A similar qualitative index can be obtained by the relationship of dosage to diagnosis. It is shown in Figure 2.

The type or quality of the reaction is, to a certain extent, dependent on the dosage administered. With increasing dosage a greater and greater percentage of the reactions are classified as schizophrenic, until it is found that at over 1 μg. per kilogram of body weight all reactions are of this type. Further restriction of the type of reaction is seen from the fact that the schizophrenic turmoil reaction is the most common diagnosis at the highest dosage, and that it decreases in frequency with decreased dosage. It thus appears that, with increasing dosage, personality and

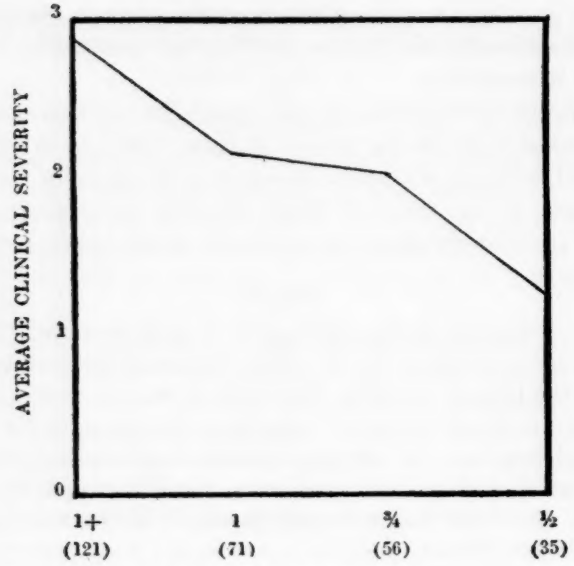

Figure 1. Relation of Relative Dosages (μg. to kg. of Body Weight) to Clinical Severity

other factors play a lesser role in determining the phenomena produced than they do at lower dosages.

The manic reaction is absent from the writer's results at the highest dosage; it appears at the 1 μg. level and is optimal at ¾ μg./kg. That it does not increase at the ½ μg/kg. level suggests that, at such a range, the amount of LSD 25 is not great enough to produce the reaction peculiarly associated with it. Only 28 per cent of the subjects in this level are to be classified as schizophrenic. Here, the psychiatrist used such phrases as "not simulating any psychiatric syndrome"—to specify the absence of marked reaction, or "schizoid" or "depressive" to signify a reaction of minimal strength in subjects with such personality tendencies.

Though dramatic depersonalizations have been extensively reported, as by Savage,[13] the gradual and transitional stages that are observed with small dosages have been ignored.

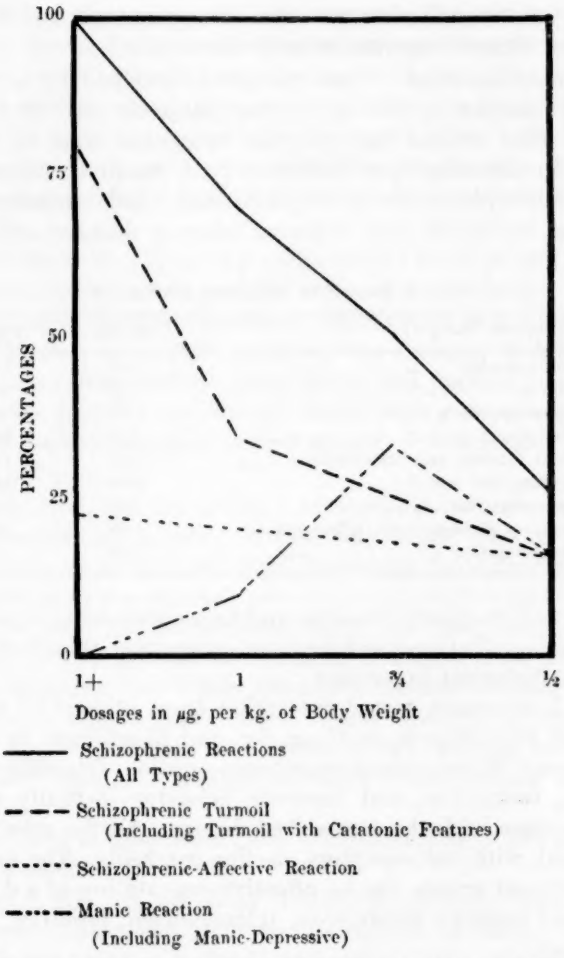

Figure 2. Relation of Relative Dosages (μg. per kg. of Body Weight) to Quality of Reaction

It has been reported that small doses of LSD 25 (½ μg/kg. or less) have an effect of intoxication. The reports on 1 μg./kg. or higher give the reader the impression that the drug is the cause of psychotic symptoms such as visual distortion, disturbance in body image, and morbid withdrawal from interpersonal relationships. With small dosage, the symptom picture is dominated by

affective or "mood" changes. Somatic symptoms are relegated to a minor supporting role in both cases.

Some corroboration of this picture is attained by a symptom summary comparing five ½ μg./kg. subjects with 33 1 μg./kg. subjects. This utilizes the symptom categories used by the psychiatrist in assessing type and severity of reaction. Neuromuscular, cardiorespiratory, gastro-intestinal, and cutaneovascular symptoms decline at very different rates as dosages are reduced (Table 1).

Table 1. Number of Symptoms per Subject

Symptom Category	1 μg./kg.	½ μg./kg.
Neuromuscular	1.48	1.40
Behavior	2.33	2.00
Cardiorespiratory	.55	.40
Affect	4.30	3.00
Visual illusions and hallucinations	1.64	1.00
Thinking and speech	2.64	1.64
Gastro-intestinal	1.06	.60
Gustatory illusions and hallucinations	.58	.20
Cutaneovascular	1.39	.40

Visual and gustatory illusions and hallucinations show a marked decline while affective and behavioral symptoms, though declining, are still substantial in number.

Table 2 compares symptoms culled from observers' verbatim reports of five subjects on ½ μg./kg. and 25 subjects on 1μg./kg.

The group of gregarious symptoms—elation, friendliness, talkativeness, relaxation, and amorous behavior—actually shows a slight increase with the diminished dosage. All the other groups decline and, with one exception, decline markedly. The exception, the detachment group, has an affective connotation of a dysphoric nature and includes depression, introspection, lethargy, and seclusiveness.

Table 2. Number of Symptoms Per Subject

Symptom Group	1 μg./kg.	½ μg./kg.
1. Gregariousness	1.52	1.67
2. Anxiety and apprehension	1.20	.50
3. Irritation and hostility	.76	.33
4. Detachment	2.36	2.17
5. Perceptual distortion	2.48	1.33
6. Somatic	5.98	3.50

LSD 25 has been compared by many subjects to alcohol. With the larger doses, feelings of intoxication appear early in the reaction and are later overlaid or supplanted by psychotic symptoms. With the smaller doses, intoxication effects are predominant. A few excerpts from the protocols and interviews may serve to depict the transition from perceptual distortion to affective sentimentality. In some subjects, conflict between control and expression is expressed.

Subject 10, E 15, (½ μg./kg.) who tended to withdraw from external contacts when his problem areas were in danger of being publicized, says about a situation in which co-subjects were making merry, "Well, I knew that the acid was starting to take effect, and here was John making crazy signs and making fun of Mrs. Cain. I know that if I had liquor I would have gone along with the gang and made a complete fool of myself. I was feeling like that but yet..."

Subject 11, E 16, (½ μg./kg.) says of his reaction before his feelings became conflictful, "At that time I just kind of felt silly. I mean that was when I felt like I had about three drinks. I didn't feel anything in my muscles yet. My co-ordination was still perfect. It was just light-heartedness, really. My head was still clear."

Subject 8, E 13, says of his reaction, "At times there was uncontrollable laughing, but I was physically relaxed instead of tense and keyed up as per usual." Also, "Quite sensitive to relationship between people. Reaction was frank, direct, with an overtone of aggression." And, "I wanted affective conversation, not intellectual."

As the dose is diminished, the whole reaction is similar to the effects of alcohol.

Subject 3, E 4, (¼ μg./kg.): "I felt freer and was able to relate much more calmly and with no compulsion to choose the right words. It was more of a steady and spontaneous response." Summarizing his reaction, the same subject says, "I felt quite relaxed all day, and as I sit and type this now, there is no evidence of depression. To me the day's tasks were of less gravity, and my productions were more spontaneous and less studied."

This reaction shows a great affinity with what Masserman[14] describes as the cortical depressant effect of alcohol and other drugs. The diminishing of anxiety or the dissolution of anxiety-cathected reactions is expressed.

Subject 2, E 5 (¼ μg./kg.): "There was a general sense of unimportance of both self and others, not an unimportance of devaluation but rather that of a loosening of previous and seemingly artificial bonds of overevaluation that seems a part of everyday life."

Subject 5, E 10: "Somewhat elated, talkative, absence of strict adherence to schedule and obligations. Lackadaisical feeling."

It has been mentioned that perceptual distortions of a gross order are not frequent with subjects receiving ½ μg./kg. or less. With this dosage, distortions and unreality are not perceived with the same force as with the full dose, and may oftentimes pass as phenomena which would have occurred in a routine day.

Subject 8, E 13, (½ μg./kg.) says of a supportive, affiliative observer, "I think that was when you came down and you had a little red hat on about as big as this. It was quite clear, I mean, it wasn't there, I know it wasn't there, but it still looked like you had a red, little hat on like a Santy Claus cap on the top of your head with a very broad, pleasantly grinning face, almost cat-like."

The same subject says of another investigative nonsupportive observer, "His head was rectangular to begin with and it seemed right there to become indented and to take on sort of an hourglass shape, if you know what I mean. That was the only thing."

The distortions at the low dosage level became scarcely distinguishable from routine alterations in mood and perception and may not be reported by the subject, for they are not distinctive enough to be called symptoms. Changes in perception of this magnitude may oftentimes be classified by the subject as changes in affect, for with the smaller doses, the two are so entwined as to form an indistinguishable unity.

Subject 4, E 9, (¼ μg./kg.) says of an authority figure who was giving a dissertation, "I felt warm toward him. His face looked younger."

Subject 6, E 11, (¼ μg./kg.): "A more even and less traumatic experience than full dosage—not unreal—awareness of certain responsibilities and obligations. I considered the atmosphere a permissive one but without the feeling that I wished to take advantage of it."

From this latter case one can see how a change in perception, which with a large dose might become illusion, or unreality, is termed a permissive atmosphere—and how what might, with a full

dose, be called apathy, indifference, or awayness, is perceived by this subject as a feeling that he did not want to take advantage of the situation.

With the smaller doses, the relaxation of defenses and of anxiety-laden behavior patterns is significant. The subject becomes freer in his relationship with people and tends to focus attention on their emotional needs rather than on the superficial behavior patterns demanded by social norms. Accompanying and paralleling this emotional tone, is the relaxation of ego censorship wherein the subject does not feel compelled to carry out the rituals of his routines, and his actions thereby become more spontaneous and genuine.

Progression

At any dosage level the maximum effect of LSD 25 occurs within a few hours. The change created by the drug is gradual. Scarcely perceptible at first, it increases to a maximum and then declines to reach the former level or a new equilibrium. The progression of LSD 25 effects has been pointed out by De Shon, et al.[15] They divided the reaction into three phases and considered the after-effects which occurred in some subjects to be a fourth phase. Phase I was regarded as the interval between administration of the drug and occurrence of symptoms. Phase II was the height of the reaction, taking place one to five hours after administration; and Phase III was the period from the end of the height of the reaction until symptoms subsided. Of 13 cases, Phase II was found to be schizophrenic turmoil in 11. One Phase II was manic-like and one schizo-affective.

Salvatore and Hyde,[16] listing and classifying symptoms over a period of eight hours from administration of the drug, demonstrated that different categories of symptoms arrived at differential peaks. They then interpreted the progressive symptomalogy as being the manifestation of defense mechanisms, utilized progressively to ward off objectionable impulses and affects. They found that gregariousness and other affectively-toned behavior were followed by somatic symptoms, perceptual distortions, and feelings of unreality. They hypothesized that attempts to ward off inadmissible emotions, by somatizing and misperceiving the reality of situations, fail and that the affect returns again, clouded in the aura of unreality.

This process takes place in the space of a few hours. Individual differences in reactivity to the drug shorten or lengthen the period. A simple device, suited to demonstrating progression by the use of psychiatric diagnosis, was adapted by Hyde. It consisted of a simple histogram on which the vertical axis was graded normal, mild, moderate, severe, and maximum and the horizontal axis graduated to denote time lapsed since ingestion of the drug. Administered postexperimentally with instructions to the subjects to give evaluations of the intensity of the symptoms felt, it provided a graphic portrayal of the development of the reaction, and of the point which is experienced as peak. Discrepancy between subjective peak and diagnostic interview can be utilized to describe the reaction.

Figures 3 and 4 show the change in quantity and quality of the reaction, at varying times from the subjective maximum, as measured by severity and diagnosis. All subjects were included who received the arbitrary standard doses of 1 μg./kg., who drew subjective symptom curves, and who had psychiatric interviews. The

Figure 3. Relation of Clinical Severity to Time Discrepancy

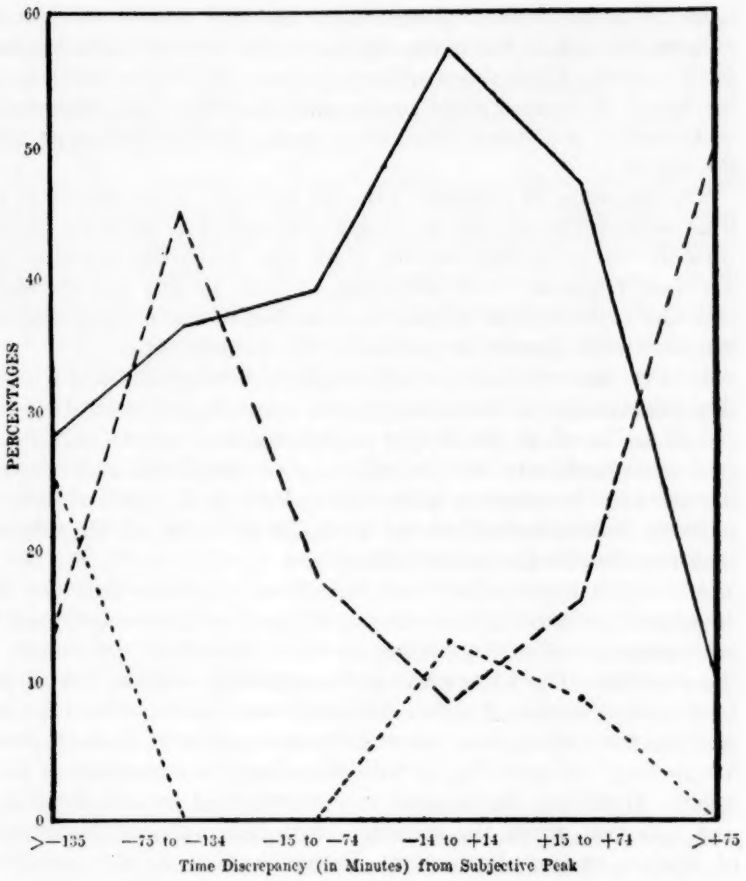

Figure 4. Relation of Clinical Diagnosis to Time Discrepancy

range of dosage* of the 78 subjects qualifying for inclusion was 53 to 107 μg., with a mean of 72 μg.

*The mean dosage for subjects in the various time periods showed no consistent variation. It was highest (75 μg.) for subjects interviewed 135 minutes or more before their peaks, and lowest (68 μg.) for subjects interviewed during their peaks.

In the same fashion that clinical severity increased with increased dosage, it increases the closer the subject is to his subjective peak. Clinical severity is highest (2.75) for subjects interviewed at or near their peaks, and diminishes for subjects interviewed at a distance from their peaks whether before or after the peaks.

The majority of subjects, over 50 per cent, interviewed at the time indicated as subjective peak, are classified as in schizophrenic turmoil. On both sides of the peak this diagnosis becomes less and less frequent. The indication is that, in this dosage range and this experimental milieu, the reaction of the normal subjects sampled tends toward a reaction of the turmoil type.

It is of interest that the schizo-affective diagnosis has a negative relationship to the schizophrenic turmoil diagnosis. It is less apt to be found at the height of the reaction, where only 6 per cent of the subjects interviewed were so diagnosed, and becomes increasingly frequent on either side of the peak, until at both 75 minutes before and after the peak, 50 per cent of all subjects seen are classified as schizo-affective.

A tenable hypothesis from this data would be that for the "average" personality the course of the reaction would first be schizophrenic-affective, tending toward turmoil at the height of the reaction. The hypothesis is theoretically tenable, for it was the psychiatric view that the difference between the affective state and the turmoil is, to a certain extent, arbitrary; in both, there are feelings of unreality, in both there may be distortion of body image. However, the turmoil is characterized by emotional flux and upheaval, while the affective state is more consistently that of elation and/or depression. Using emotion as the criterion, one could further the proposed hypothesis by considering a manic episode to be the initial stage, before it takes a schizophrenic coloring. If this were so, one would expect personality differences between those subjects diagnosed manic at the peak and those so diagnosed at a distance from the peak. It would also explain why the diagnosis of manic is not made between the initial and peak periods.

Personality

Studies relating personality to LSD 25 reaction have not been done. The usual study pattern has been to list the symptomatology observed clinically and then add a comment as to the mechanisms

the author thinks operative in causing individual differences. Stoll,[17] in the first published paper on LSD 25, called attention to the possibility of using it in psychotherapy and diagnosis. However, the seemingly natural extension of LSD 25 research into personality has not been made.

Condreau,[18] speculating from clinical observation, thought that changes occurring with LSD 25 were due to an intensification of basic mental symptoms or to the caricaturing of basic personality. Becker[19] held that the psychological manifestations result from impulsivity on one hand and intentionality on the other; the most striking contrast of the reaction—manic hyperkinetic, and inhibited depersonalized manifestations—being the drug correlates.

Later, clinical appraisal was interspersed with test results, comparing responses of subjects before and during the reaction. Stoll,[20] reporting on the Rorschach, concluded that in normals the drug produces a general loosening of mental processes similar to the clinical picture of intoxication and that "disinhibition" of affectivity and greater fluency occurs, but that precision and wealth of content are decreased. Levine, et al.,[21] working with larger doses, characterize the Rorschach responses as indicating a disturbance in the defensive system, with pressuring into consciousness of submerged conflicts and urges. Emergence of repressed fantasies, and of autistic and deviant thinking is held to be accompanied by overpersonalization and loss of distance and greater surveillance of both inner and outer stimuli.

In 1952, Lindemann and Clark[22] commented on the lack of personality studies in connection with drugs, and affirmed the need for research dealing with the individual predictability in response to drugs. Their paper offers the abstract consideration that changes in the integrative functions of the ego come about by the reduction or modification of perceptive cues.

Diagnostic studies with patients offer a beginning. Liddell and Weil-Malherbe[23] noted that after an initial phase of relaxation, an aggravation of the clinical picture ensued. Depressed patients became more retarded and depressed; schizophrenics showed withdrawal, tension, catatonic and cataleptic features. Abreaction occurred in neurotics. Hoch, Cattell, and Pennes[24] found that severity of reaction is correlated to chronicity of schizophrenic illness. They found that pseudoneurotic schizophrenics had the most severe re-

action to LSD 25, that deteriorated schizophrenics had the least severe, and that chronic schizophrenics reacted moderately.

Perhaps studies of personality have not been fruitful because of the well-known self-selection that occurs when one asks for volunteers to ingest drugs. The writer's own subjects have been shown to be divergent from a random, normal sample by comparing their Wechsler-Bellevue subtest scores with those presented by Rapaport[25] for normals and various pathological categories. The writer's subjects, test-wise, resemble acute paranoid schizophrenic patients most closely. They resemble the over-ideational preschizophrenics, neurasthenics, and obsessive-compulsives more than they do the well-adjusted sample, and resemble coarctated preschizophrenics and severe neurotic depressives as closely as they do the well-adjusted sample.

Table 3. Rank Order (Rho) Correlation Between Symptom Categories.

Mood—Sensory	=.629
Mood—Somatic	=.008
Somatic—Sensory	—.167

Within this self-selected group, however, variations do occur and can be diagnosed as a syndrome occurring under the effect of the drug. Table 3 shows the rank order correlation of the numbers of symptoms in three categories. The correlation between the number of somatic and mood symptoms is at the chance level. The slight negative correlation of somatic and perceptual symptoms would lead one to think that predisposition to one type would, to an extent, exclude the other; and the correlation between mood and sensory symptoms would lead to the belief that there is a connection between affectivity under LSD and perceptual distortion.

Those subjects who sometimes, during the LSD day displayed overt, amorous behavior were free from feelings of unreality and had fewer perceptual distortions than the group as a whole. Similarly, subjects who in the drug state displayed elation, a symptom prototypical of the gregarious symptoms because of the intensity of energy it suggests, were prominently low in symptoms of the awayness type and of the perceptual distortion type. In this group, the only two subjects who had feelings of unreality ranked first and third in the total number of symptoms displayed

during the experimental day. Another example, perhaps situational, because the research team was all male, is that of four female subjects who had outbursts of crying during their LSD day. All four had outbursts of inappropriate laughter and feelings of unreality also. Concomitantly they were low in gregarious symptoms.

The conclusion was reached that LSD 25 increases the amount of energy which the individual has to dissipate in a given amount of time. This increase in "energy" may be understood psychoanalytically as being the release of suppressed or repressed material which, before drug administration, was below the level of consciousness. This is the most common psychological explanation of how the drug operates. Busch and Johnson,[26] interested in the drug as a possible therapeutic agent, suggested that the drug serves to disturb the barrier of repression, while Sandison, Spencer, and Whitelaw,[27] using a Jungian approach, have best described the upsurge of material from the personal and collective unconscious.

Table 4, comparing individuals with small dosage and individuals with 1 μg./kg., who have been divided as for the presence

Table 4. Average Number of Symptoms Per Subject in the Various Symptom Groups—Related to Dosage and Presence or Absence of Unreality

Mean No. Symptoms in Each Group per Subject	½ μg./kg.	Dosage 1 μg./kg. No Unreality	1 μg./kg. Unreality
Elation	1.67	2.33	.77
Anxiety	.50	1.17	1.23
Hostility	.33	1.00	.54
Awayness	2.17	1.75	2.92
Perceptual Distortion	1.33	1.50	3.39
Somatic	3.50	5.50	5.54
Total	9.50	13.25	14.39

or absence of unreality, may be of help. As would be expected, subjects with ½ μg./kg. have less symptoms than either group of 1 μg./kg. subjects. But the expectation that each symptom group would increase as one progresses from ½ μg./kg. through 1 μg./kg. with no unreality, to 1 μg./kg. with unreality, is not fulfilled. Anxiety, perceptual distortion, and somatic symptoms do increase, but elation, hostility, and awayness do not. The difference is explained

by the fact that the division of subjects was made by choosing subjects of different reality perception. Elation and hostility increase with increased dosage, but there is a decrease when compared between individuals with the same dosage from subjects who experience no unreality to subjects who do experience it. And conversely, "awayness" behavior is more marked in individuals who experience unreality than those who do not. It appears that if the individual's behavior pattern or system of defenses is such as to make direct expression of impulses taboo, the energy is transformed into somatic or perceptual phenomena.

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CASTRATION ANXIETY AND PHALLUS ENVY: A REFORMULATION

BY BEULAH CHAMBERLAIN BOSSELMAN, M.D.

Theoretical formulations have for the most part been originated by men. This fact may be relatively insignificant in the fields of impersonal science, but it must be taken into account in evaluating theories of human behavior, since interpretation of behavior cannot fail to be affected by the attitudes of the interpreter. His attitudes in turn are largely determined by the traditions of the culture in which he lives.

Therefore when Sigmund Freud, living in the patriarchal society of nineteenth-century Western Europe, explained most problems of personality development as due to castration anxiety in the male and phallus envy in the female, one must consider his theory against the background of his social milieu.

The Freudian theories are based on the assumption of male superiority. They imply that the most fear-provoking and disorganizing concept to the male concerns the possible loss of his masculinity; and that the female, likewise acknowledging the supremacy of the phallus, is beset by feelings of inadequacy and resentment.

Most superficial observations would seem to bear out this implication. The very fact that social theories are formulated by men is obviously in itself one indication of male dominance. The important work of the world in politics, business, the professions and the arts is directed by men. There have been some female gods in obscure times and places but for the most part Heaven—and shall one add Hell?—also are ruled by male deities!

There are, however, some facts that do not fit smoothly into the masculine-superiority theory. The death rate among males of all ages is higher than among females. This may be a matter of unexplained biologic organization but one cannot rule out a contributing psychologic factor. Especially striking is the fact that, in practically every society about which statistics have been gathered, more men than women commit suicide. The proportion is at least two to one and in most places much higher than that.

To anyone who is intrigued by the concepts of constructive (life-preserving) versus destructive (life-destroying) forces battling in every human being, these facts stimulate speculation. Is life

basically more valuable to the female, less easily given up? Is the "life instinct" (variously described as Eros or as "*elan vital*") stronger in the woman, and if so does this indicate that femininity allows a more gratifying way of life than does masculinity? These are the questions that provide the background for re-examination of Freudian theory.

Most psychiatrists will agree that the great majority of men who present themselves for treatment prove to be primarily fearful about their capacity for maleness—as defined by our cultural traditions. Their protests, expressed in variable ways, indicate a wish to be strong, dominant, aggressive—associated with a doubt as to the existence of these qualities in themselves. They are afraid to be passive, yet afraid to compete with other men; resentful of strong women and equally resentful of clinging ones.

This monotonously repetitive personality problem may express itself in symptoms of anxiety, depression, over-compensatory aggressiveness (even delinquency) or a defeated withdrawal. It may result in somatic illness, which rationalizes escape, or alcoholism, which deadens conflict. It may be projected in a paranoid placing of blame upon circumstances outside the self. But as the basic structure of the difficulty is revealed, it takes the form, over and over again, of fear of passivity; and underlying this is a more or less strongly repressed longing to be dependent, to assume a more protected, less responsible role. This longing, however, arouses intense fear of aggression. The man must be strong, he must compete with the father and brother figures in his milieu, or he will be subject to scorn. His socially-prized gift of masculinity will be snatched from him and there will be no place for him in the world.

This is the "castration anxiety" so astutely observed by Freud. It is evident as soon as the little boy becomes aware of his sex and at the same time becomes aware that he can no longer remain in close uncontested relationship with his mother. During his prolonged infancy, all his reactions have been directed toward interaction with the mothering person. His sucking and grasping reflexes reach out to her; she is his comfort and security, the stable unchanging focus point in the "big buzzing blooming confusion" of his world. He cannot resolve the problem, as his sister is expected to do, by identification with the mother. Instead he must make the sharper break, identifying himself with the father

and assuming toward the mother the kind of attitude which he observes in the father.

The "Oedipal conflict" which develops in the boy at the age of three to six has been described largely in terms of competitive striving with the father for the mother. The fact that the child's diffusely erotic infantile feelings are at this time becoming genitalized tends to symbolize the competition in sexual terms. The boy must be like father; he must feel as the father does about the mother; he must be masculine. But in competition with the father he is a small and vulnerable male, in danger of "castration."

This focus of interest on aggressive sexualized strivings with the father has tended to overshadow the fact that the boy, in identifying with the father, must accomplish a sharper removal from his intimate symbiosis with the mother than is expected of the girl at this age. Father is presumably strong and protective in his attitude toward mother—an attitude which contrasts strongly with the dependency of the baby. In other words, the male child must in his personality development deal with two demands: First, he must give up his passive dependent attachment to his mother. Second, he must, in substitution for this, work out a satisfactory identification-competition with the father. The strong ambivalent feelings aroused by the second problem tend, as has been mentioned, to obscure the persistence of the deep dependency longings. It is the persistence of these longings—so disapproved by our aggressive patriarchal mores—that in later life underlies much neurotic disturbance in the male.

Let us now turn to the developmental problems of the female. The little girl also must renounce her exclusive dependency on the mother, and she too becomes in a more specifically sexual way attached to the parent of opposite sex—her father. This stimulates the same competitive strivings with the mother that the boy experiences with the father. However, it is not necessary for the girl to change her attitudes so radically, because in identifying with the mother she still remains in a protected-dependent role. She is allowed, within the social pattern, to continue to be passive-receptive. Her brother is given guns and is expected to negate the infantile role with gestures of control and active manipulation, whereas the girl in her play with dolls still continues vicariously to fantasy the baby-mother relationship. Even as she matures, she is allowed many infantile prerogatives which are denied the

boy. The family is more tolerant if she is fearful, if she weeps and runs away. Brother is expected to fight and hold his ground, and is told that big boys don't cry.

The price the female pays for this social tolerance of her persistence in infantile attitudes is, on the surface, a high price. The male, encouraged in his out-going active strivings, becomes socially dominant, and, at least theoretically, the head of the family. In some times and places he has used his strength and authority to browbeat the female into a state of humiliating subservience. It is this appearance of inequality that has led to the implication of masculine superiority which influences the Freudian theories of behavior.

The theory of phallus envy as the root of female neurosis is implicit in the Freudian interpretation of castration anxiety. If loss of maleness is the most fearful of all traumata, then envy of maleness might well be assumed in the female. Its existence is borne out by the protests of "feminist" groups, and it can also be demonstrated in some of the neurotic symptoms of women who come for psychiatric treatment. It may be expressed as frank resentment of the feminine role, with a good deal of competitiveness and need to control the male. It may lead to efforts for a "career" in fields dominated by men or may express itself mainly in tyrannical control of the family—a matriarchal kind of rule.

This phallus-envy motif is, however, by no means as consistently found in psychiatric studies of women as castration anxiety is found in men. The concept is in fact much less prevalent in present-day psychoanalytic literature than it is in the earlier papers. It is nevertheless a presenting symptom in a certain percentage of conflict-ridden women.

Women who are involved in "masculine protests" of this kind are frequently either unmarried or have husbands who are described as weak and ineffectual. The simplest interpretation would seem to be that such women envy the dominant male and, therefore, are likely, if they marry at all, to choose a passive partner with whom they can reverse the roles. This often seems to be the situation as such women present it originally to the psychiatrist. They protest that they are dissatisfied with their places in life, want to accomplish more important tasks, feel restless and confined. They insist that men have the more interesting position, and they may dwell at length on the injustices of the social system.

These protests, however, have to do more with the outward superficialities than with the basic personality needs. As psychiatric exploration penetrates these outer layers, it reveals them as a brittle defensive veneer. Essentially, woman has built up this competitive controlling defense because the men in her life have not accepted her in a male-to-female relationship. They have not created a situation in which she dares to be passive-receptive. The rejection usually begins with the father and may be an outright disinterest on his part, or it may be an attitude that accepts her as a son rather than as a daughter. If the girl's mother is at the same time competitive rather than supportive, the child has no recourse but to assume an aggressive manipulative attitude toward the world. "If you won't take care of me I will fight you; I won't give you an opportunity to hurt me."

This kind of attitude makes it difficult for the girl to develop good love-relationships in later life. The secure men who are best capable of admiring and protecting a woman turn rather to those better oriented in the feminine role. Dependent, mother-seeking men, on the other hand, turn to her as a seemingly strong woman, and a frustrating relationship is thereby set up. Both want to be taken care of; both resent the need to be strong and responsible.

This brings us to what is really the core of the problem. Personality difficulties in both men and women have a common origin: the persistence of old, insufficiently gratified hungers for the exclusive love and protection of the parent. The male has been taught to overcome this by assuming an outgoing aggressive attitude toward the world, implying a denial of infantile wishes. The female is allowed to continue in a more passive role, insofar as she is able to attach herself to supportive masculine figures.

As has been observed, the male role implies a sharper break with the original receptive attitude and it becomes, therefore, reinforced by rigid codes. It wins rewards however in the position of social control which it favors. To the man who is able to renounce his infantile strivings, the world is full of challenge and he can relate to his wife with real admiration for her feminine prerogatives rather than with envy and resentment.

The female, in an accepting milieu, finds continuing satisfaction in the receptive, rather than manipulative, position, and as she develops, is able to give freely to her husband and children

the mothering love which they need. Her participation in activities outside the home then becomes determined by her intellectual curiosity and social consciousness rather than by a need to prove her worth in the "man's world." On the whole this is a smoother, more gratifying situation, which may explain the lower death-rate, and particularly the lower suicide rate in women. More of the simple primitive satisfactions of the child persist; there is less socially-imposed stress and strain.

Regarded in this way, one sees the masculine and feminine roles, not in terms of superiority versus inferiority, but rather as patterns determined by the exigencies of maturation. The process of growing up, renouncing the satisfactions of one stage of life to substitute those of the next, is not an easy process. The tendency is to cling to the old ways or to regress to them when adaptations become difficult.

In such situations the male, longing for protection and dependence, finds his impulses at sharp variance with the codes of society. He must be aggressive, or he meets with intolerance, even contempt. He feels vulnerable to the world, as in early childhood he felt vulnerable to the greater strength of his father. His "castration anxiety" expresses this vulnerability. "I must be what the world demands or my masculinity will be taken from me and I shall be nothing."

Phallus envy in the female, as has been observed, is a less frequently occurring phenomenon because of the more basically gratifying nature of the feminine role. When it does occur, it indicates only superficially an envy of the masculine position; more essentially it is the woman's protest at not being allowed to be a woman.

The problem of residual infantile longings struggling within cultural patterns of masculinity and femininity which we observe in our patients is a problem characteristically underlying the neuroses of our day. We know that the meaning of the typical neurotic disturbances of any time and place highlights the prevalent cultural stresses and strains. It would seem then, considered from a prophylactic point of view, that our standards of masculinity tend to be too rigid, demanding too completely and too suddenly the establishment of an aggressive, independent, "mature" position.

The boy, forced by great social pressure into this role, experiences more or less insecurity. This may express itself frankly or may be overcompensated by overly aggressive attitudes. The persistence of conflict in the man complicates his relationship with women. Envying their more dependent state, he may overemphasize his superior social position and express dictatorial, even sadistic, attitudes. On the other hand, by such devices as illness, alcoholism, or repeated failure, he may manage to shift his responsibilities to the women in his life, making them "parent figures." Or he may vacillate between these attitudes, exacting care from the woman, but meanwhile depreciating and rejecting her, to deny his dependency.

Women's difficulties are to a large extent secondary to those of men, resulting, as we have seen, from the fact that men who resent and compete with women cannot offer them a genuine appreciation and affection—cannot gladly let them fulfill their feminine role.

The number of men and women who present this problem to a psychiatrist represents obviously a very small percentage of the people who struggle with it alone. Their difficulties are manifested in a high divorce rate, marital infidelity, frigidity and impotence, inadequate parental attitudes, homosexuality. Over a wider social area these conflicts in self-identification contribute to delinquency, prostitution, alcoholism and drug addiction, homicide and suicide.

Prophylaxis lies largely in the direction of better family attitudes. The child must gradually substitute for his infantile "consuming" instincts a more outgoing, sharing point of view. His needs must be reasonably satisfied or he will be forever hungry; yet he must also be guided to consider the needs of others. The child who is loved and accepted can most freely give, but unless he is also led to see himself in an interacting role, a unit in a larger dynamic social unit, he may remain expectant of continuing infantile satisfactions and, therefore, may never fully accept the responsibilities of adult life.

This basic challenge is the same for the boy and the girl. For each, the establishment of a sense of worth as a person provides the best foundation for a satisfactory masculine or feminine identification.

Summary

The differing demands which our culture imposes on the male and on the female influence the prevalent psychopathology of men and women.

The more compelling early need of the male to renounce dependency may well be related to his higher death and suicide rates and his higher incidence of alcoholism and delinquency. The role of the female is a biologically easier one to attain.

Castration anxiety and phallus envy, as formulated by Freud, are re-evaluated as products of the more primary problem of renouncing infantile satisfactions in favor of maturity and responsibility. Symptoms of castration anxiety appear to be universal among disturbed men but phallic attitudes in the female are less common. When they occur, they are often found to represent, not the female's envy of the male, but her protest at his denial of her feminine prerogatives.

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DENIAL OF LOBOTOMY AS A CONTINUATION OF THE DEFENSE MECHANISM OF DENIAL IN SCHIZOPHRENICS

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Although the fact that many lobotomized patients deny the operation has been mentioned by various observers, no systematized study of the phenomenon of the denial of lobotomy and its relationship to the use of the psychological mechanism of denial has ever been made.

The confusional state which exists immediately postoperatively consists not only of a denial of the operation, but also of many sensorial defects such as memory impairment, various degrees of disorientation, reduplication, confabulation, paraphasic language and confusion. But, many years after the immediate postoperative confusional state clears, there remains the denial of lobotomy in a number of lobotomized patients.

Some observers have felt that this denial of operation, that remains even after signs of anatomical brain damage disappear, is but a continuing manifestation of the neurological damage necessarily involved in the operative procedure. Perhaps, this feeling has been influenced by a particular form of denial associated with brain damage and called anosognosia.

This term, introduced by Babinski[1] in 1914, originally pertained to the denial of the paralysis which occurs in some hemiplegics; but the concept has been enlarged to include the denial of blindness, the denial of other illnesses, and the denial of the existence of a part of the body as well.

Nathanson, Bergman and Gordon[2] refer to this phenomenon simply as denial of illness. Its etiology has been variously described as due to "frontal lesions," "parietal lesions," "thalamic lesions," interruption of frontothalamic pathways or "disturbance in the body scheme." Early studies attributed this denial to organic defects. Later, however, the dynamic aspect of the phenomenon came in for more consideration. Thus Schilder suggested the term "organic repression," signifying an exclusion of unpleasant bodily defects or functions from consciousness. Goldstein, on the other hand, showed anosognosia to be a type of adaptation to a defect and not a phenomenon created by brain damage.

Weinstein and Kahn,[3] in a review of more than 50 years of study of the problem of denial of illness, state:

"Our findings indicate that the various forms of anosognosia are not discrete entities that can be localized in different areas of the brain..." "Under the requisite conditions of brain function, the patient may deny the paralysis of an arm whether it results from a fracture, an injury to the brachial plexus, a brain stem or cortical lesion. The effect of the brain damage is to provide the milieu of altered function in which the patient may deny *anything* that he feels is wrong with him...

"Our problems are related to some of the problems of prefrontal lobotomy. This procedure when performed bilaterally evidently creates a milieu of brain function sufficient for the existence of anosognosia." These authors state that the denial of illness as used by these patients is related, not to differently located brain lesions, but to "features in the pre-morbid personality." However, Freeman and Watts[4] devote considerable attention to the phenomenon of denial of lobotomy and conclude that the mechanism is "probably neurological."

Stengel,[5] in a study of 324 patients, mentions the presence of denial of operation in 51 patients, but gives no indication of the existence of the psychological mechanism of denial before the operation.

Frank[6] also observes the denial of operation, but again without correlation with the patients' previous use of denial as a defense mechanism. Legault[7] ascribes the symptom of denial in post-lobotomy patients to "complex processes representing psychological defensive operations as well as anatomical damage."

For the sake of clarity, Laughlin's definition[8] of the mechanism of denial is used here by the authors:

"Denial has been defined as an unconscious mental mechanism employed to resolve emotional conflicts and allay consequent anxiety by consciously disowning one of the important elements of the conflict. The presence of a thought, wish or deed may be denied, or the conflicting standards, prohibitions or consequences may be denied. Denial is one of the simplest and most primitive kinds of ego defenses."

This mechanism of denial is used by children, by so-called normals, and by neurotics and it is extensively used by chronic schizophrenics. The authors are particularly concerned here with the

systematized study of the phenomenon of the denial of lobotomy and its relationship to the defense mechanism of denial, especially as used by chronic schizophrenics.

Methods and Material

One hundred fifty unselected male postlobotomy patients were studied at Pilgrim (N.Y.) State Hospital. All of these patients had been institutionalized for at least 10 years and all had diagnoses of schizophrenic reaction. Most of these patients were hospitalized at least five years before lobotomy was performed, and most of them were lobotomized at least five years ago at Pilgrim State Hospital by the same neuro-surgeon using the same classical technique. All were lobotomized because they constituted severe management problems, were assaultive, restless, aggressive and destructive before operation. With a few exceptions, none of them had ever been considered well enough for release from the hospital, and those few exceptions returned to the hospital within a year after release on convalescent status.

All of the 150 patients were interviewed repeatedly by the authors to determine whether at present they denied the lobotomy, used other terms of denial, or whether their use of denial was "questionable." In addition, the hospital records of all these patients were carefully studied to determine if these patients had also used the mechanism of denial before operation. Many of these cases were well known to one of the authors before operation.

Results

Of the 150 patients, 99 (66 per cent) deny their lobotomies at present; 30 patients (20 per cent) do not deny them; and 21 patients (16 per cent) "questionably" deny them.

The 99 patients who deny their operations do so rather emphatically. When the scars of the burr holes are pointed out to them, they offer all sorts of rationalizations to explain their presense: "I was in a restraint sheet once and someone hit me in the head." "They are just marks; they don't mean anything." "It's a bone like that." "I have a normal head." "They came by themselves." "I got bumps from sleeping in the dormitory." "Suddenly, I found two dents. I didn't have any operation." "They cut out pieces of my head to deaden the microbes of my head,

but they did not operate on my brain." "I must have fell on my head."

Some patients also use displacement, saying that the brains of other patients on the ward were operated on because the patients were "crazy," but deny the operation for themselves. Yet, many of these same patients having other operative scars, such as from herniorrhaphy and appendectomy, do not deny the presence of these scars or the reasons for them.

Some of these patients explicitly deny any operation "on my head or my brain." Occasionally, when some patients are specifically told that they have had lobotomies, that a lobotomy means an operation on the brain and that the scars or depressions in the skull indicate a lobotomy, they apparently accept the statement only to deny the operation again a few hours later.

All of those 99 patients also used other forms of denial. Some denied that they were sexual deviants, or that they were recently involved in altercations, or that they at one time admitted having hallucinations. All denied that they are or ever were mentally ill.

When a patient was so regressed that an adequate interview was impossible, or when the denial could possibly be attributed to a manifestation of negativism, he was placed with the "questionable" group. There was a total of 21 such patients.

The 30 patients who admit having had lobotomies seem to understand, and be fully aware, that a lobotomy means an operation on the brain.

Of the 99 patients who use the denial of lobotomy, 81 patients (82 per cent of this group) used the mechanism of denial in their illnesses before the operation. Thirteen patients did not use the mechanism of denial in their illnesses before operation, yet deny their lobotomies at present. Five patients "questionably" used the mechanism of denial before operation, and deny their operations at present. Of the 30 patients who admit having had lobotomies, 24 (80 per cent) did *not* use the mechanism of denial in their illnesses before the operation.

Two patients who admit to their lobotomies at present used the mechanism of denial in their illnesses before operation.

Four patients who admit to their lobotomies at present, "questionably" used the mechanism of denial in their illnesses before operation.

Representative Case Reports

J. O. This 48-year-old, white, single man was admitted to Pilgrim State Hospital, May 25, 1938, with a history of complaints of pain in his pelvis and "some trouble" with his penis because he had developed the "clap" when he had had sexual relations with a female. After admission, the patient became impulsively assaultive, restless, disturbed, had to be in almost constant restraint, and was a severe management problem. The patient also participated in masturbatory practices and in active and passive fellatio. However, the patient denied any deviant sexual practices, denied that he was assaultive and denied that he was mentally ill. Despite symptomatic ECT, he continued to be assaultive, destructive and depressed.

He was lobotomized on October 3, 1949. Following this, his behavior improved somewhat. He occasionally became impulsively assaultive but not to the extent that he was before the operation. However, he remained completely hallucinated and continued to regress, despite his continued participation in occupational therapy activities. In January 1956, the patient was started on chlorpromazine and has remained on this drug until the present, with continued behavioral improvement.

At present, J. O. participates actively in interview situations. He states that he was originally brought to the hospital because he had some trouble with his penis and that he felt he needed an operation on his penis to rid him of a disease which he had acquired in sexual relations with a woman. The patient rather vividly goes into detail describing the events which occurred immediately before his prefrontal lobotomy but denied his well-documented sexually deviant behavior before operation. When questioned specifically about his lobotomy, the patient states, "No, I didn't have any operation. I was just sent to Building 25 to get a shave and haircut and to have my picture taken. They kept me there for about five days and then they sent me back." When asked to palpate the bony defects of the operation, the patient states, "I don't know what this is."

The patient also denies his homo- and auto-erotic activity, which is still going on at present.

Obviously, this patient used the mechanism of denial before operation and still uses this mechanism today.

H. H. This 39-year-old, white, single male was admitted to Pilgrim State Hospital on October 29, 1947 on transfer from a private psychiatric hospital to which he had been admitted in 1944 and from which he had never been released. On admission to Pilgrim, he was extremely restless, agitated, actively hallucinated and assaultive. He admitted incessant worry and feelings of irritability and stated, "I'm sick. I'm awfully sick—getting too much of that. I'm confused—masturbation had done it." He admitted having hallucinations but could not adequately describe them. He was treated with ECT and insulin shock with no change in his condition. He remained impulsively assaultive and masturbated openly on the ward. He was lobotomized on July 13, 1948; but his condition remained essentially the same. He was overactive, noisy, confused, impulsively assaultive, and hallucinated; and he continued to masturbate openly. Nevertheless, the patient admitted that he was operated on for a "lobotomy and they took five-sixths of my brain away because I was mentally sick." He was placed on chlorpromazine in January 1956 and has been continually on the drug since that time. At present, the patient freely and frankly admits that he has had an operation on his brain, that he masturbates, that he has had, and is having, a "nervous breakdown" and that the operation was performed on his brain in order to cure his mental illness. However, the patient remains actively hallucinated and severely regressed. Obviously, this patient never used the mechanism of denial before operation and does not use it today.

Comment

From the data presented, it is evident that the denial of lobotomy is fairly common—66 per cent of the patients in this study show this phenomenon. In this group of patients the denial is complete and emphatic. Also these patients not only deny their lobotomies but also deny other highly emotionally charged or "affect-laden" matters.

When, during interviews, these patients are asked to touch their scars, or to palpate their skull depressions with their own hands, and concommitantly and repeatedly are told that this indicates an operation on their brains, they emphatically and positively deny this. Repetitive efforts to convince a patient of his operation are met with persistent denials; some patients even accuse the examiner of lying. At the same time, these very same patients

also deny that they were recently involved in well-documented altercations or well-documented sexual deviations. They also categorically deny that they are mentally ill or were ever mentally ill. These patients also demonstrate a *"belle indifference"* which can also be described as euphoria. In the presence of this superficial euphoria, the patients show a tendency to avoid talking about the operation, but if the examiner persists and "boxes in" the patient, the obvious physical and emotional aspects of anxiety develop—such as sweating, flushing, irritability, distractibility, quavering of the voice, and, finally in some, even mutism. This manifestation of anxiety and the obvious use of the mechanism of denial to cope with this anxiety constitute the cornerstones of these patients' defense mechanisms.

In a recent study, the authors have also found that lobotomy does not change the pattern of sexual behavior which existed prior to operation in the majority of cases. The present study seems to show that lobotomy does not change the use of the basic defense mechanism of denial which existed prior to operation.

This is borne out by the finding that 80 per cent of the patients who deny lobotomy, used the mechanism of denial before operation. This mechanism of denial before operation took the form of the denial of many highly emotionally-charged thoughts, wishes, desires, events or subjects; and in the denial of illness per se. This "simplest and most primitive kind of ego defense" is also used to a great degree in many chronic nonlobotomized schizophrenics.

It, therefore, appears untenable that the denial of lobotomy is merely a neurological phenomenon, due to the damaged brain of the patient. The findings of this study seem to explain, then, the existence of the denial of operation in postlobotomy patients as an extension, continuation or further manifestation of the basic mechanism of denial used by the patient in his severe mental illness. It seems that denial, having proved useful to these patients in their need to tolerate signs and symptoms of illness, may encourage the further maintenance of such an attitude in the form of a mechanism of denial.

Although this study deals with hospitalized patients, this denial of lobotomy and the use of the mechanism of denial pre- and postoperatively has been observed in patients who have been released

from the hospital because of improvement in mental status. An analysis of this group of patients awaits further study.

In a collateral analysis of 150 long-hospitalized, nonlobotomized chronic schizophrenics it was also found that over 70 per cent of these patients used the mechanism of denial in one form or another. This finding seems to lend weight to the concept that the mechanism of denial is peculiar to the complex process of schizophrenia rather than to some anatomical damage of the brain.

Finally, the assumption often made, that the "personality changes" in brain-injured people are due to anatomical deficit or attempts to compensate for it, is open to grave doubt. A thorough knowledge of the premorbid personality is a prerequisite to the conclusion that a personality change is the result of a damaged brain.

Conclusions

1. The incidence of denial of lobotomy in 150 male institutionalized postlobotomy patients is 66 per cent.

2. Of these patients who deny their lobotomies, 82 per cent used the psychological mechanism of denial before operation.

3. Of the patients who do not deny their lobotomies at present, 80 per cent did not use the mechanism of denial in their illnesses before operation.

4. The denial of operation in postlobotomy patients appears to be a continuation of the basic psychological mechanism of denial used by these same patients before operation. It would seem that, since denial proved useful to these patients in enabling them to tolerate signs and symptoms of illness, they may have been encouraged to maintain their attitude further by setting up a mechanism of denial.

This mechanism of denial is well known to be extensively used by psychotics.

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THE IMPACT OF MENTAL HEALTH FILMS ON IN-PATIENT PSYCHOTHERAPY*

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In recent years, a number of mental health films have been produced for various community purposes. By early 1957, the Mental Health Film Board had a listing of 14. The writers asked themselves whether these films could be used for psychotherapeutic purposes, serving—with discussion—either as therapeutic tools in their own right or as adjuncts to existing therapies. While the writers' study was in process, they found the interesting paper that Behymer, Canida, Cooper, Faden and Kahne had just published.[1] These authors reviewed the literature, and pointed out that there had been no previous sustained attempt, within group structure, to use mental health films for the purposes of rehabilitation and treatment of the mentally ill. There is a marked difference in the methodology of Behymer's group and that of the present report. In the writers' project, the aim was to answer the question, "Can mental health films in any way influence existing therapeutic experiences?" by studying in detail a small number of patients, using psychological and clinical data to evaluate both conscious and unconscious reactions to the film showings.

Method

The group conducting the study consisted of the director of the psychiatric service, the chief psychologist of the hospital, the chief resident in psychiatry, a psychologist especially assigned to the project, and the executive secretary of the Mental Health Film Board. This group met every two weeks during the life of the project to discuss methods and data, and to revise methods when necessary.

The experimental population consisted of ward patients on the psychiatric service of the Mount Sinai Hospital, New York City, during the period from February 13 to June 30, 1957. The capacity of the unit is 21 beds (men and women); the average census during the study period was 19, of which one or two represent private or semi-private patients (not included in the study, except

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in relation to group activities). The average duration of hospitalization was somewhat under three months, so that there was a gradual turnover of the experimental population, besides the fluctuation already noted in the private and semi-private census.

Preliminary study of the patients consisted of intensive clinical observation in both individual and group settings; and, in 73 per cent of the experimental population, there was psychological testing (usually including the HTP, Bellevue-Wechsler, Rorschach and Bender-Gestalt tests, as well as selected TAT cards). Further special studies were made according to specific indications. The psychologists devised an attitude inventory for preliminary and follow-up studies, which, as the discussion will show, did not prove practical in the Mount Sinai setting. Patients who came onto the service while the study was in progress were studied in a similar manner, concurrent with the film showings.

Thirteen mental health films were shown on consecutive Wednesday nights; film showings had to be cancelled on two occasions, so that the total period was 15 weeks.* All patients were encouraged to attend the film showings, which were in the main ward; and the average patient attendance was 15. The projectionist was an untrained volunteer who left at the conclusion of the showing. The chief resident, a man, sat with the group, and then led a discussion at the end of each filming; his interventions during the discussion sessions were few, and were aimed chiefly at encouraging participation by one or another patient; he made few interpretations, and did *not* try to restrict patients to conscious discussions of the films. The discussion period ranged between one to one and one-half hours; an evening snack was served during this period. The project psychologist, a woman, made notes throughout these evening discussions, but did not participate in them. Her notes constitute the most detailed of the experimental data. At one time or another during the experimental period, 22 patients actively participated in these discussions, and six or more additional patients sat quietly in the discussion group. Thus the experimental group consists of 28 patients, or slightly more, not all of whom were on the service at any one time.

*The films were kindly lent by the Mental Health Film Board, Inc., 166 East 38th St., New York City. In the order shown they were: *Roots of Happiness; First Lessons; Preface to a Life; Angry Boy; Farewell to Childhood; Head of the House; Fears of Childhood; Family Affair; Broken Appointment; Steps of Age; Man to Man; Kid Brother;* and *The Lonely Night.*

About six months before this project was begun, the service had introduced a morning group session at the start of each weekday. These sessions, lasting 15 to 20 minutes on four mornings and for an hour on the fifth morning, were conducted by the chief resident. They were open to all patients, with nurses, residents and occasional professional visitors as observers. This group served many functions which are discussed elsewhere.[2, 3] Every effort was made to use it as a dynamic instrument, rather than as a group for adminstrative briefing. No change was made in these group sessions during the study period, except that the one-hour sessions were shifted from Wednesday to Thursday mornings in anticipation of the project. Thus, the longest morning group sessions were held on the mornings after the film showings. The chief resident made notes after each session.

On the Mount Sinai psychiatric service, all of the patients are seen for daily intensive psychotherapy by the residents to whom they have been assigned. During the project, each resident was requested to record any production of any of his patients which he felt might be related, consciously or unconsciously, to the film showings.* The residents had had previous showings of the films in order to prepare them for this phase of the study. The data thus accumulated from individual sessions leave much to be desired. In all, only 30 items were dictated, 17 by the resident who was actively engaged in the project. The significance of the limitations of this source of data is discussed in the body of this paper.

The project psychologist conducted structured interviews with 22 of the participating patients immediately before their discharges from the hospital.

In summary, the data are from five principal sources: (1) the usual clinical and psychological studies; (2) notes made during the group sessions which immediately followed the film showings; (3) notes made after the morning group sessions; (4) specially dictated notes from individual psychotherapy sessions; and (5) pre-discharge interviews. In addition, the Mental Health Film Board furnished scripts of many of the films. Study of the scripts, parallel to study of the patient data, was useful in various ways

*The writers wish to acknowledge the efforts of the then residents on behalf of the project. They were Drs. Albert Reiser, David Schulman and Arthur Wachtel, in addition to Dr. Zucker.

—for instance, in clarifying patients' distortions of what they had seen or heard.

For the purpose of the present study it was felt that the number of variables involved was so great that any attempt to set up a control group would fall far short of any true scientific criteria. However, the writers did feel that the 10 years of experience on the Mount Sinai psychiatric unit, from 1947 to 1957, offered some guide to what might be expected of patients in terms of therapeutic progress. This experience of the senior members of the team with previous patient and resident populations has served as the "base line" in the discussion; it is felt that it is useful though crude.

In examining the data for evidence of the impact of the films, a code was used to aid in the search for, and classification of, relevant items. This is illustrated in the accompanying table.

MENTAL HEALTH FILMS

Items to be coded in reviewing all discussion and interview notes.

(1) Trends obviously and consciously prompted by film:
- (a) Factual
- (b) Personalized
- (c) Interpretive
- (d) Problem solving

(2) Trends motivated by other factors:
- (a) Apparently autistic
- (b) Preconsciously or unconsciously interpretive
- (c) Acting out
- (d) Interpretation of own behavior

(3) Affective responses:
- (a) Anxiety and fear
  - (1) Direct report (shock, fear, etc.)
  - (2) Observer impression
  - (3) Other (parapraxes, etc.)
- (b) Anger
  - (1) Direct report
  - (2) Observer impression
  - (3) Other
- (c) Sexual
  - (1) Direct report
  - (2) Observer impression
  - (3) Other
- (d) Transference
- (e) Countertransference

Results

1. *Impact on Group Sessions*

a. *Anxiety.* In the regular morning group sessions, anxiety about closeness was often manifested by extreme passivity of the whole group, or by the passive delegation of active participation to one or two members of the group. Anxiety related to feelings of isolation often resulted in the withholding of intensely personal thoughts and feelings from the group. The film showings seemed to mitigate these anxieties by providing the reassurance of community of experience, "You're not the only one," coupled with an escape when needed, "other people's problems." As a result, the postfilm discussions were uniformly freer in flow than any of the other group sessions. The security thus offered may, in part, have accounted for a tendency to carry over the postfilm discussions into the following mornings' sessions.

At times, the group felt freed to express ideation which had previously been either conscious and suppressed or preconscious and pressing for expression. Thus: The group had never discussed their concern about their doctors' qualifications, although the members usually became rapidly acquainted with the hospital organization and procedures, including the fact that they were being treated by residents with varied degrees of aptitude and experience. One night, a film was shown that was concerned with a new public health nurse, her mistakes and her growth under supervision and through discussions with her colleagues. That night, and even more on the following morning, the group devoted considerable thought and discussion to the realistic problem involved in being treated by relatively inexperienced psychiatrists; anxiety was ventilated, and some realistic reassurance was found.

Although the group was profoundly shaken and angered by a film showing life in a state mental hospital, the members were still able to approach the problem of their own fears of "insanity" during the discussions—something which had only been covertly touched on in previous sessions. In this instance, the film mobilized anxiety, but not beyond the group's limit of tolerance.

b. Educational. As programmed, the films served to reinforce interest in the experiences of childhood, as being material of psychiatric importance. There was, however, a great reluctance to connect, consciously and verbally, the experiences of childhood

with present-day behavior patterns. Unconsciously, the group moved in counterpoint between past and present with the transference used as the sounding board in the present. For instance, after the showing of *Angry Boy,* there was a discussion of the revolt against authority which had been shown in the film. A manic patient first denied the validity of the film revolt, then became extremely overbearing in the group and commented, "I'm manic-depressive, I'm supposed to act like this." He thus re-enacted infantile feelings of low self-esteem, vented in rebelliousness. With sporadic exceptions, this present-day re-experiencing of old affective situations was not interpreted by the group.

The apparent educational message of the various films was usually taken up with interest by the group. One film on primary school educational problems and child guidance stirred little interest in its manifest problem, and more interest in side issues of emotional import.

c. Positive transference. Usually the group reacted to the films as a gift from the doctors, perceived at one or another psychosexual level. Thus, when a film showing was missed, there was considerable irritation in the following morning's group session. One patient at such a session compared "nondirective therapy" to the food which was supposed to be provided on the ward at night. "You can make regulations but the attendants and nurses [accusation later extended to the medical staff] will take some of the patients' food." The feeling that the film showing represented a benign influence of the doctors was succinctly expressed immediately after one film showing. Someone asked what therapy was for, and a member answered, "To bring out our troubles through the pictures we see." Another added, "We're not here to discuss this picture like a Broadway movie. It isn't discussing a picture merely as a picture. It's the relationship of problems to the picture, this is therapy." Or, more simply still, on a morning when the group was aware that no film was to be shown, the remark was made, "That's too bad, the films stimulate the group."

Conversely, the attention devoted to the films by the patients was, in part, a gift within the transference. The resident who led the group never stopped the discussion when it seemed to wander away from the film during the evening postfilm discussions, but often one patient or another would make an effort to return wandering discussions to the film, sometimes mentioning this as a kind

of obligation. The Thursday morning group sessions showed a substantial influence, in 12 of 13 instances, derived from the previous evening's film. Sometimes the film was consciously referred to, at times unconsciously. In either case the utilization of a stimulus offered by the service (film) represented a positive transference manifestation.

An example of the preconscious or unconscious use of a film stimulus in the following morning's group session was observed the day after a film, concerning *Fears of Childhood,* had been shown. In this film a child's phobia of a cave, and the same child's nightmare, triggered off by fury at its father, were presented. The manifest topic of the next morning's discussion was vacations. This was quickly and unconsciously related to the problems of anger, desertion and anxiety by the question, "How do you feel about leaving the city, the cultural center?" — The elaboration by various group members is consistent with the writers' interpretation: One said, "It's not the place, but how you feel." The group agreed. Another said, "It's *who you're with* and how you feel." — After further discussion, which included references to having enough money, a patient said, "When you feel right the city is enough. ... [When you don't] sometimes you can't leave your problems behind." — After a comment by the therapist, one of his patients remarked cheerfully, "I saw you at 1 [a.m.] last night and figured if the doctor can be up, I can be up." The group laughed (not being alone with their dreams and fears). Shortly afterward, both daydreams and night dreams were mentioned, the latter with, "Are night dreams any different?" — The group members' fears of their own vengeful anger, and their adaptive attempts to deal with it seem to have been stimulated by the previous night's movie.

d. Resistance. In part, the discussion centering about the film was used by the patients as a vehicle to reinforce various defenses such as denial and projection. It was particularly useful as a kind of isolating defense which could be expressed in the formula, "We will talk about the films and avoid what we fear most in ourselves." Thus, on a morning after a film showing had been omitted, the group was unusually silent. One member said that "nondirective therapy is good, but for quiet schizophrenics, such as we have, it's no good." Another said that she was, "thinking about it, but didn't want to say the wrong thing." A third patient

told of her fear of talking in the group, "I don't know them very well," while another said that, "The doctors should do something." Still another burst out angrily, "The movies are better, then we have something to talk about, we shouldn't talk about ourselves, we should talk about other people's worries, you need people to make you feel better than you are, even if you're not."

At times the doctors were perceived as representing rigid, withholding and punitive super-ego figures. The films could serve to bring these feelings to expression. (See also discussion under *a. Anxiety.*) Thus resentment at the doctors for "withholding help" was brought out in the discussion of a film in which a social worker was active with a husband and wife. The social worker's film role was distorted by the group in such a way that her statements were felt to be much more directive than had actually been shown; the group then belabored the service for not matching this fantasied "ideal" level of conduct (i.e. for "withholding").

The most vivid negative reaction followed the showing of a film concerned with conditions in a state mental hospital. The patients reacted to this film with intense anxiety, which they were able to verbalize; but their hostility to the doctors, stirred by the showing of the film, was more covert. For instance, the following morning one patient said, "It was shock treatment [seeing the film]." During the same session, another patient made a more direct statement which condensed the anxiety and the hostility, "Dr. X [the patient's resident therapist] is weak, next week he may be a Samson, but this week he is weak." Another patient remarked, "*Many* of those in this film will not get well." Although this has a basis in reality, it probably also represents a hostile, masochistic transference attack on a threatening parent surrogate.

Surprisingly there was no evidence of any significant resentment of the pressure to attend the film showings and discussions. Perhaps this is because no strong sanctions were applied.

2. *Impact on Individual Psychotherapy*

It was hoped that the data would lead to some understanding of the impact of the film showings on individual psychotherapy. Unfortunately, the data do not permit any firm conclusions, but only serve as the basis for impressions which will be noted. The reasons for this partial experimental failure are:

1. The special psychological inventory tests were found not to be suitable tools, because the normal rate of admission and discharge of patients precluded working through the 15-week experimental period with an unchanged patient population. Consequently, the writers could not obtain a sufficient number of sets of responses to permit a quantitative analysis of change (or lack thereof).

2. Notes gathered by the residents from individual psychotherapy sessions were inadequate. There was, early in the project, a spurt of dictation by the residents, while only one note was dictated during the last month of the project, despite the fact that two of the films that month were declared by all of the residents to have had profound impact on the patients under their care (*Man to Man* and *The Lonely Night*). The writers believe that among the causes of this failure were their own inability to give the residents a feeling of active participation in the project, and the residents' lack of experience in recognizing, in the patient's manifest statements and attitudes, unconscious reverberations of current experiences, such as viewing the films. Perhaps there was also some difficulty in understanding the latent content of the films, and, hence, in detecting patient response to it.

3. The interviews at discharge contributed little in this regard; perhaps the pangs of separation from their therapists and from the service inclined the patients to minimize connections of the film experiences with the individual psychotherapy.

In the intimacy of individual psychotherapeutic sessions, the film showings and discussions seemed equivalent to other ward activities, and like the other activities, were used in individual sessions as conscious discussion material, or as day residue material in the construction of fantasies and dreams. It was extremely rare for a film showing to modify the general trend of any patient's individual sessions, rather the film material would be used within the trend. Thus the films, for the most part, seemed to play a nonspecific role in individual psychotherapy.

Conscious use of the film material is illustrated in the remarks made by an anorexia nervosa patient during her individual therapy session after she had seen a film concerned with the upbringing of small children: "I started to learn since the film. . . . When I was small, even if I was dead right I was wrong. . . . I couldn't say no to mother, I couldn't say leave me alone."

The same anorexia patient used a film about a delinquent boy as the basis for a fantasy: "During the film I thought about M. [a young schizophrenic woman] ... they found him [the boy in the film] in trouble, clamming up, unable to speak. She's like me, her parents crammed so much in that it made her ill. ... even the bullying that he showed she shows. She got up 20 minutes late and forced Miss B. [head nurse] to do things for her."

There were three dreams, which had obvious connections with the film showings, reported in individual therapy. Since all three were reported by patients in treatment with the resident who conducted the film discussion groups, it seems reasonable to assume that the transference served as a stimulus for the incorporation of film material into the dreams.

A middle-aged depressed woman who had been a professional dancer for a year or so in her youth, had reported very few dreams. Following one film showing, she dreamed of her days in the theater, and was inside of one. It was a happy dream, "I could think and feel and was alive." The same patient, the night after watching a film concerned with a family in an agricultural setting, had dreamed, "I seemed to be married to Walter Pidgeon [the film star]. ..." Her associations led her to the film *Mrs. Miniver,* and to the garden scene in it. (This film was seen by this patient outside the hospital, since it is not a mental health film.)

The most elaborate use of the film material in a dream was noted in a dream reported by a teen-age small-town girl suffering from severe ulcerative colitis. She had seen a film entitled *Fears of Childhood* which included a nightmare sequence in which a boy's teddy bear became a real and threatening bear with a humanized face. This phobic animal was replicated in that night's dream. She dreamed, "A pigeon flew up to a wire and then flew down and started crawling over my friend. I feared that the pigeon would hop over onto me. It perched on her head. It had a funny face, not a pigeon face. We looked at it as if it were queer and it looked at us as if we were queer." The patient's associations included:

(1) Looking at a pigeon's nest through the hospital window with her mother (who was visiting) and being frightened when the pigeon flew up. (2) The discussion of the film the night before, when a patient had referred to the public contempt for mental patients who were called "loonies" (loony birds). (3) Hazel,

the girl on whom the bird walked, the daughter of a chicken farmer. The patient's grandfather had chickens which had, when young, to be "pegged." She and her cousins, when they were "kids," were supposed to do this, put something in the chicken's beaks at night. Her cousins found out that she was afraid and used to grab one of the chickens and rush at her in the dark. (4) Seeing a chicken running around with its head cut off. "That was funny." (5) In response to an interpretation of her fear of losing her head (craziness), the memory of being betrayed by a girl friend who publicly told their male teacher that the patient had dreamed of being in love with him. The patient quickly parried by saying, "That was not a dream, it was a nightmare," and turned the joke on the teacher.

In this material, there are a number of striking parallels to the dream nightmare, unconscious references to it, and, the writers believe, to its latent content. The transference connections with the hospital and with the therapist (male teacher) seem clear-cut.

The depressed woman who was mentioned also used the film showings to express negative feeling in the transference. Complaints about sensory impoverishment were characteristic for her when she was in a negative phase. The morning after seeing a film on the problems of aging, she said, "The picture last night ... I could hardly hear the words ... I got so little out of the picture." In part, this may have represented denial of what was, for her, a touchy subject; but one feels that there was also an expression of negative feelings toward her therapist.

In considering the contrast between the nonspecific role of the film showings on individual psychotherapy with the positive effects noted in group work, the writers believe that the difference is related to feelings about closeness. The need for human contact led in different directions in the two settings. The films were viewed jointly by the group and the chief resident, and the discussions that followed were based on mutual experience, which served to increase the feeling of contact between group members, including the therapist. On the other hand, the shared experience in individual therapeutic sessions tends to be the content of the sessions themselves (verbal and nonverbal), and the patients tend to foster the feelings of "being alone together," partly to further the feeling of increased contact. In this context many day residues are omitted from sessions as "distractions" from the in-

timacy of the interviews. Experienced supervisors on the Mount Sinai service find that most residents need frequent reminders of the importance of stimulating patients to discuss current ward experiences of all sorts. As this experiment was constructed, no effort was made to stimulate patients to discuss reactions to the films in their individual therapy sessions.

3. *Psychology of the Viewer*

Most investigations open up inviting byways. In the present instance the detailed notes of the evening discussion groups offer a rich opportunity to study the dynamics of viewing. The reactions to the films bring out some of the reactions of captive audiences. They give evidence of the psychology of the viewer. In addition, since these were sound films, there is material relating to the film as a voice, in part, obviously, the voice of authority. These special problems in psychology are beyond the range of the present paper, but will be the subject of another communication.

Discussion and Conclusions

The writers' experience, although limited to this one experiment, leads them to the conclusion that the showing of mental health films to hospitalized psychiatric patients, followed by group discussion, has a number of values both for group work and for community morale which makes this a useful therapeutic method.

Where group sessions were concerned, the film showings and discussions usually diminished anxiety and resistance, and intensified various aspects of the transference relationship. Group participation was consistently more general, and discussion more fluent, in relation to film showings than at other times. In addition, certain affect-laden topics and attitudes were discussed which had also often been avoided in individual psychotherapy. It was evident that the film discussions were also used defensively, particularly through the mechanisms of projection, denial and isolation; but all of these defenses were open to interpretation, and in no way outweighed the positive aspects of the experience.

The educational impact of the films represented another positive influence on the group. The contents of the films and the direct discussion of them served to orient psychiatrically unsophisticated patients toward the interests and methods of dynamic psycho-

therapy much more rapidly than previous experience with such patients would have led the writers to expect.

The Mount Sinai patients, like most hospitalized psychiatric patients, form a heterogeneous group as to symptoms, character, life experience, age, sex, marital status, etc. The development of a feeling of community in such a mixed group provides both a therapeutic experience and a vehicle for therapy. Prior to the present experiment, the writers were satisfied that the regular group sessions and various group activities and therapies all fostered this feeling of joint productive experience with concomitant increase in interest and in hopefulness. The film showings and discussions, though far from unique in subserving this function, seemed particularly well adapted to it. They offered the group the opportunity of sharing affectively-loaded experiences with each other, and with a doctor representing the service, as well as the opportunity of immediately working through some of the experience together.

Would such a method prove useful in the setting of a specialized psychiatric hospital? This question underlay the present study, which was undertaken on the writers' unit because of the opportunity for intensive study in depth. It seems to the writers that some of the advantages noted in the preceding discussion could be extrapolated to the situation of patients under treatment in specialized psychiatric hospitals (excepting patients with organic mental syndromes of marked degree). The diminution in group resistance that has been noted is particularly to be anticipated. Hospitalized schizophrenics, for instance, are characterized by an intense fear of closeness and a great need for it. As was pointed out in the body of this paper, the film showings and discussions provided a feeling of getting something special from the doctors (closeness) at the same time that adequate distance was available ("other people," etc.). The building of a healthy community spirit could be expected, and would seem to be of even greater importance to the population of a specialized psychiatric hospital, because of the kind of isolation in a crowd which too often prevails in such institutions. Whether the educational effect which was observed could be counted on in a large psychiatric hospital seems less certain. It would be surprising if any sizable number of chronically ill patients could separate themselves suffi-

ciently from their intensely personal modes of thought to permit sustained comprehension of the integrated meaning of the films.

The writers found no marked differences in the nature or rate of progress of individual therapy during the life of the project. There was no notable sustained impact on either the conscious or unconscious productions of the patients or on the transference. In the context of individual therapy, the films seemed to represent merely one additional facet of the general relationship of the psychiatric service and the patients; it was meaningful, as such, but no more than any other experience. There was some increase in patient sophistication and some attraction of patients' interest to areas of psychiatric importance; but these gains, where individual therapy is concerned, were not sufficient to justify the efforts involved. The reasons for this contrast with the considerable value of the film showings and discussions for group therapy have been discussed in the body of the paper.

In general, the writers' conclusions are similar to those of Behymer et al.[1] who noted that the films had a marked catalytic effect on the group process, and that the procedure complemented and tended to facilitate other therapeutic procedures. There is some ambiguity in approving their mention of facilitation, since the present writers do not feel that individual psychotherapy is faciliated; but they do agree that group therapy can be materially facilitated. Although the Veterans Administration hospital where Behymer et al. conducted their study is, like Mount Sinai, a general hospital, the population of their psychiatric service was probably more like that of a specialized psychiatric hospital than the patients studied in this paper; the similarity of conclusions reached in these studies lends further support to the writers' belief that the methods should prove useful in specialized psychiatric hospitals.

Although the writers did not experiment with the use of the film showings and discussions for the purpose of teaching psychiatric residents, it seems that the method offers an excellent opportunity for the direct demonstration of psychodynamic processes. The use of group therapy for this purpose has previously been discussed by Kesselbrenner and Zucker.[4] The film showings would lend themselves particularly well to this kind of teaching in that the facets of the film chosen by each patient for discussion can usually be demonstrated easily in terms of their

relevance to the particular patient's life experiences, fantasies, and customary modes of defense and adaptation.

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CHANGES WITH AGE IN ELECTRIC CONVULSIVE REACTIONS IN MENTAL PATIENTS*

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Introduction

In the administration of electric convulsive therapy on the male reception service of Creedmoor (N.Y.) State Hospital, it was noted that consistent individual differences appeared between patients with respect to the durations of tonic and clonic periods, and of the total convulsion.

This article reports a study conducted to confirm and quantitate this observation, and to determine its significance, as far as possible, together with a review of pertinent experimental and clinical literature.

Material and Methods

For a period of several consecutive months, all patients on the male reception service who were placed on electric convulsive therapy were included in this study. In this group of over 50 patients, observations were made on the entire prescribed series of electric shock treatments in each of 32 patients, and the data obtained on these patients only were analyzed.

No other limiting criteria were used in the selection of patients. All patients were male, hospitalized as voluntary or legally certified admissions, ranging in age from 17 to 64.

The patients are listed in Table 1, in ascending order of age. Each has an identifying number, and his age and diagnosis are listed.

The majority of those patients on the service who receive somatic therapy, other than ataractic medication, have electric convulsive therapy. A much smaller number receive subcoma insulin treatment, and a still smaller group is transferred to the insulin coma service for treatment. For these reasons, the experimental group is fairly representative of those patients on the service who receive other somatic therapy than the ataractics. The use of electric shock treatment is dependent on the consent of the next of kin of the patient. The choice of therapy and the

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Table 1. Age and Diagnosis Characteristics of Patient Group

Patient No.	Age	Diagnosis
1	17	Dementia praecox, undifferentiated
2	18	Dementia praecox, mixed type
3	19	Dementia praecox, catatonic type
4	20	Dementia praecox, undifferentiated
5	22	Dementia praecox, paranoid type
6	23	Dementia praecox, mixed type
7	24	Dementia praecox, mixed type
8	25	Dementia praecox, catatonic type
9	26	Dementia praecox, paranoid type
10	26	Dementia praecox, undifferentiated
11	28	Dementia praecox, paranoid type
12	29	Dementia praecox, paranoid type
13	31	Dementia praecox, paranoid type
14	32	Dementia praecox, paranoid type
15	36	Dementia praecox, paranoid type
16	38	Dementia praecox, paranoid type
17	38	Dementia praecox, mixed type
18	42	Manic-depressive psychosis, depressed type
19	42	Psychosis due to alcohol, paranoid type
20	42	Dementia praecox, catatonic type
21	44	Dementia praecox, undifferentiated
22	49	Involutional psychosis, paranoid type
23	50	Involutional psychosis, melancholia
24	51	Involutional psychosis, melancholia
25	52	Dementia praecox, mixed type
26	56	Involutional psychosis, melancholia
27	56	Involutional psychosis, melancholia
28	56	Involutional psychosis, melancholia
29	60	Involutional psychosis, paranoid type
30	61	Involutional psychosis, melancholia
31	63	Manic-depressive psychosis, manic type
32	64	Involutional psychosis, melancholia

number of treatments in a series are decided by the supervising psychiatrist in charge of the service. The majority of patients have a series of 20 treatments.

Electric convulsive treatments are given on this service three mornings weekly. No muscle-relaxing drugs or prior sedation is used. An electric convulsive apparatus of standard make (Medcraft) is employed The current is applied through the usual bitemporal electrodes, using an electrode paste. The conditions of application were standardized throughout this study, as much as was possible. The positions of the electrodes on the heads were identical in all cases. The therapy was begun in all cases with

electrical stimuli of the same intensity and duration, 140 volts for 0.4 seconds.

As was anticipated, a number of patients during their electric convulsive series failed to have convulsions following this standard stimulus. In these patients, who either did not have convulsions or who reacted with minor convulsions of less than major intensity, the stimuli were increased in voltage and/or duration on a gradual, trial-and-error basis until adequate stimuli were found. These patients were those listed in Table 2 as exhibiting "initial

Table 2. Period Durations of Electric Convulsive Activity, and Initial Major-Convulsion Failures

Patient Number	Number of Treatments	Tonic Period (seconds) Average	Tonic Period (seconds) Range	Clonic Period (seconds) Average	Total Period	Number of Initial Major-Convulsion Failures
1	20	2.6	2.2— 3.8	35.8	38.4	0
2	20	2.7	2.0— 4.2	41.5	44.2	0
3	20	4.8	2.0—10.0	34.6	39.4	0
4	20	2.5	2.0— 4.2	38.9	41.4	0
5	20	2.4	2.0— 3.2	41.8	44.2	0
6	20	3.2	2.6— 4.8	37.2	40.4	0
7	20	3.1	2.0— 7.2	33.1	36.2	0
8	20	2.9	1.8— 7.2	36.6	39.5	0
9	20	4.6	2.0—16.0	31.3	35.9	1
10	20	2.8	2.2— 4.2	34.3	37.1	0
11	20	5.1	2.6—10.8	31.8	36.9	1
12	20	2.5	2.0— 3.2	33.7	36.2	0
13	20	5.8	2.8—15.0	34.1	39.9	6
14	20	3.8	3.0— 6.8	32.5	36.3	0
15	15	3.5	2.4— 4.8	37.5	41.0	0
16	20	5.0	2.8—11.4	32.8	37.8	3
17	20	7.3	6.0—10.0	31.4	38.7	0
18	20	5.7	2.8—14.0	33.5	39.2	3
19	20	4.4	2.8— 7.0	32.9	37.3	0
20	20	2.7	2.2— 4.2	38.2	40.9	0
21	20	4.0	2.4— 8.8	35.8	39.8	2
22	20	10.1	3.4—19.2	33.3	43.4	3
23	20	9.1	2.2—19.0	24.7	33.8	11
24	20	4.8	2.8—10.8	31.1	35.9	1
25	20	8.0	4.8—13.0	34.9	42.9	2
26	15	6.7	3.8—11.6	28.3	35.0	3
27	12	4.0	2.6— 6.4	27.5	31.5	8
28	20	7.2	2.8—11.0	31.1	38.3	6
29	20	6.3	2.8—12.0	25.8	32.1	6
30	17	7.0	3.8—10.0	37.2	44.2	4
31	15	5.0	3.0—10.2	34.3	39.3	6
32	20	6.9	2.8—11.0	30.2	37.1	3

major-convulsion failures." Since the characteristics of the current in the initial stimulus were constant, the phenomenon of "initial convulsion failure" can be considered a rough measure of initial convulsion threshold.

Stopwatch determinations were made on each treatment. The duration of the tonic period (interval between the start of the electric stimulus and the onset of clonic movements) was recorded to the nearest tenth of a second, and the duration of the ensuing clonic period was recorded to the nearest second. In most instances, the clonic period began with a twitching of the periorbital muscles. In some patients, particularly in those with the briefer tonic periods, the clonic period usually began as a sudden opisthotonus with no preceding periorbital or other muscular twitching, and in these patients the determinations were made at the onset of opisthotonus.

Results

The results are summarized in Table 2, which provides the identification number of each patient, the number of treatments received, the average duration of each patient's tonic periods for the entire series, the range of latent period lengths, the average length of the clonic phase for each patient, and the number of initial major-convulsion failures for each patient during the series of treatments.

As in Table 1, the patients are listed in order of age from the youngest through the oldest. It will be noted that both the average durations of the tonic periods and the numbers of initial major-convulsion failures tend to increase with the ages of the patients, and that the average durations of the clonic periods tend to decrease in the older patients.

Table 3. Period Durations and Initial Major-Convulsion Failures by Range of Tonic Period Duration

Groups by Range of Tonic Duration (seconds)	Average Tonic Duration of Group (seconds)	Average Clonic Duration of Group (seconds)	Average Age of Group (years)	Average Number of Major-Convulsion Failures
2.4— 2.9	2.6	37.6	25.9	0.0
3.1— 4.6	3.8	33.5	35.4	1.4
4.8— 6.3	5.3	32.2	41.5	3.4
6.7—10.1	7.7	31.4	53.3	4.0

Table 4. Period Durations and Initial Major-Convulsion Failures by Age Group

Age Group (years)	Number of Patients in Group	Average Duration of Tonic Period of Group (seconds)	Average Duration of Clonic Period of Group (seconds)	Average Number of Initial Major-Convulsion Failures
Under 24	7	3.0	37.6	0.0
25—34	7	3.9	33.5	1.1
35—44	7	4.7	34.6	1.1
45—54	4	8.0	31.0	4.3
Over 55	7	6.2	30.6	5.1

These relationships are more clearly shown in Tables 3 and 4. In the compilation of Table 3, the patients were listed in the order of increasing average duration of tonic period lengths, and then divided into four groups of eight patients each. The average duration of the tonic period, the average duration of the clonic period, the average age, and the average number of major-convulsion failures was determined for each group. The group with the shortest tonic period average was found to be the youngest group, was found to have the longest average length of the clonic period, and was found to exhibit the least number of initial major-convulsion failures. Parallel opposite correlations were found to be

Table 5. Period Duration and Initial Major-Convulsion Failures by Diagnostic Group

Diagnostic Group	Number of Patients	Average Age (years)	Average Duration of Tonic Period (seconds)	Average Number of Initial Major-Convulsion Failures
Dementia praecox, undifferentiated ..	4	26.8	3.0	0.5
Dementia praecox, catatonic type ..	3	28.7	3.5	0.0
Dementia praecox, paranoid type ..	8	30.3	4.1	1.4
Dementia praecox, mixed	5	31.0	4.9	0.4
Psychosis due to alcohol, paranoid type	1	42.0	4.4	0.0
Manic-depressive psychosis	2	52.5	5.4	4.5
Involutional psychosis, melancholia ..	7	56.3	6.5	5.1
Invalutional psychosis, paranoid type	2	54.5	8.2	4.5
Dementia praecox, Total	20	29.6	4.0	0.8
Involutional psychoses, Total	9	55.8	6.8	5.0
All paranoid psychoses	11	35.8	4.9	1.8
All other psychoses	21	40.4	4.9	2.3

Table 6. Initial Major-Convulsion Failures by Age and Period Durations

Group	Average Age (years)	Average Duration of Tonic Period (seconds)	Total Duration of Convulsion (seconds)
Patients with no initial major-convulsion failure	27.5	3.4	36.0
Patients with initial major-convulsion failures	48.6	6.1	31.6

present in the group with the longest latent periods, and the two median groups followed symmetrically.

In the formulation of Table 4, the patients were divided into age groups, and similar correlations were found to be present.

In Table 5, the results are arranged in diagnostic groups; and, in Table 6, the data are compared between the 15 patients with no initial major-convulsion failures and the 17 patients showing one or more such failures. Both tables show the tendency for the age-incidence maxima of the different diagnoses to determine positive correlations between the diagnoses and the temporal and threshold characteristics of the convulsion.

Discussion

From the data of the study, observations can be made concerning changes with age in the threshold and in duration of the convulsion periods.

Since the characteristics of the initial stimulus current were constant, the number of initial major-convulsion failures may be treated as a rough measure of the convulsion threshold. A positive correlation of +.767 exists between the patient's age and the number of such failures. Prior animal experimental evidence bearing on this correlation was reported by Fröhlich and Mirsky (1942),[1] who described a progressive increase in the threshold for convulsions in albino rats following acid fuchsin injections through the twenty-first day of life; thereafter, the material was not epileptogenic. Gellhorn and Ballin (1948),[2] from a study of the relation between age and susceptibility to electrically-induced convulsions in the rat, concluded that susceptibility was related to age. In a later study of this relation in the rat, Pierce and Patton (1952)[3] concluded that body weight was much more effective in deter-

mining the threshold than age. The clinical study by Watterson (1945),[4] however, found no correlation between weight and electric convulsive threshold in 70 male psychotic patients, and concluded that for patients in the age range available (19 through 49 years), there was a linear relation between the threshold and age. Although the data of the present study do not permit confirmation of a linear relation, the positive correlation between age and presumed threshold is significant.

Regarding the duration of the periods of the convulsion, a statistical analysis of the data of this study, using the rank-difference correlation technique, disclosed that the correlations between the age of the patient, the average duration of the tonic period, the average duration of the clonic period, and the number of initial major-convulsion failures are significant. Between the age of the patient and the average duration of the tonic period there is a positive correlation of +.675. There is a positive correlation of +.728 between the average duration of the tonic period and the number of initial major-convulsion failures. That shorter tonic periods tend to be followed by longer clonic periods is shown by a negative correlation of —.580 between the average durations of the tonic period and the average durations of the clonic period. This could be anticipated from the tendency of the duration of the total period of the convulsion to remain constant. In this study, the mean for this period was 37.4 seconds (σ =3.45) for the patient group. Holmberg's earlier study[5] showed 37.6 seconds for the mean of the same period in his group of 37 males.

There are surprisingly few studies of the changing relation between the durations of tonic and clonic periods with age, or of attempts to define its significance.

Holmberg,[5] studying 99 patients (36 males, 62 females) aged 19 to 64, observed that the durations of convulsion and the relative durations of tonic and clonic phases were remarkably constant. His data show, however, (his Table 3, p. 474) that the duration of the tonic period for the young group (patients below 30 years) was 12.8 seconds, and was 14.0 for the older group (above 39 years), although the total durations showed much less change (from 37.5 to 37.8 seconds). Holmberg apparently used a mechanical technique to measure the durations of periods of activity, which may have led to defining the shift from tonic to clonic

periods by a later criterion than the visual perception of initiated clonic activity used in the present study.

Kalinowsky[6] noted that "modification of seizures, mostly shortening of the clonic phase, was seen only under abnormal conditions, particularly in patients in whom consciousness was impaired at the time when the seizure was induced. Shortening or absence of the clonic movements was first noticed by us in patients under the effect of anti-convulsive drugs, not only after barbiturates with their narcotic effect, but also in some patients under large amounts of dilantin, whose sensorium was clear. Another condition in which the clonic phase is frequently shortened or abolished, is the deep hypoglycemic coma. Although the tonic phase is undoubtedly the most constant part of a convulsion, we saw a few instances where the hypoglycemic patient reacted to the electrical stimulus at once and exclusively with clonic movements. Modifications of the clonic phase are of interest in the light of theories that the clonic phase represents a recovering of the cortical activity. It seemed to be absent in conditions where the normal functioning of the cerebral cortex was presumably impaired."

It is probable that further observations on the phenomena of convulsive activity will provide additional information on the changes in integrity of neural tissue with aging, and perhaps lead to clinically useful measures.

Summary and Conclusions

The results of the measurement of the time components of the muscular manifestations of electric convulsive phenomena in a group of 32 male psychiatric patients, aged 17 to 64, are presented. With statistically significant differences, younger patients showed longer tonic periods and lower thresholds than their elders. The duration of total convulsive activity, however, was constant. The observations confirm earlier animal and human studies on convulsive threshold changes with age, and provide original data on the changing durations of the periods of convulsive activity.

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THE RELATIVE VALUE OF TRANQUILIZING DRUGS AND SOCIAL AND PSYCHOLOGICAL THERAPIES IN CHRONIC SCHIZOPHRENIA*

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The relative merits of different treatment methods in chronic schizophrenia remain largely undetermined. Recent enthusiasm for the tranquilizing drugs has been great,[1, 2] yet improvements have been observed in chronic schizophrenic patients without the use of drugs or other specific physical treatments, such as electric shock, insulin coma or lobotomy. For example, the Stockton study[3] reported improvement and discharge of chronic patients treated intensively with group therapy, nursing care, occupational therapies and a rehabilitation program.

The present project has undertaken to compare the relative merits of drugs and social and psychological therapies in two different environments in the treatment of chronic schizophrenia. The questions under investigation were: Will the addition of social and psychological therapy to drug treatment increase the improvement and discharge rate, and in what ways does drug treatment affect patients treated with social and psychological therapies alone? Four groups of patients were studied. One group received drug therapy and social and psychological therapy at a small treatment center. A second group received drug therapy and limited social and psychological therapy at a large state hospital. Two other groups received social and psychological therapy *without* drugs, one at the small treatment center and the other at the large state hospital. The project also considered the family circumstances of these patients, the specific effect of various social therapies and the effects of a group of chronic schizophrenic patients on an acute treatment center. These studies will be reported at a later date.

The present report will deal with the changes in the two groups of patients treated with both drugs *and* social and psychological therapies in contrasting environments.

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Subjects

The subjects were 46 in-patients of Metropolitan State Hospital, Waltham, Mass. All had been diagnosed by the hospital staff as schizophrenic for the preceding five years. The specific diagnoses were as follows:

Schizophrenic reaction, paranoid type	18
Schizophrenic reaction, catatonic type	8
Schizophrenic reaction, simple	2
Schizophrenic reaction, hebephrenic type	1
Schizophrenic reaction, chronic undifferentiated type	17
	46

No patient had a diagnosis of mental deficiency or chronic brain syndrome.

The average age of the patients was 38, and all were between 25 and 50. The average length of total hospitalization was 11 years, all patients having been located at Metropolitan State Hospital continuously for the preceding five years. There were 28 women and 18 men.

Drugs

Each patient was treated with three drugs simultaneously: chlorpromazine, reserpine and trihexiphenidyl hydrochloride ("Artane"). The trihexiphenidyl hydrochloride was used to counteract the rigidity and tremor expected as a result of the chlorpromazine and reserpine. The combined dosage for male patients was:

Chlorpromazine	100 mg., t.i.d
Reserpine	1.0 mg., t.i.d.
Trihexiphenidyl hydrochloride	5.0 mg., t.i.d.

The dosage for female patients was one-half that for males. With two temporary exceptions, all drugs were administered orally.*

Milieu and Social Therapies

In this report, social therapies (milieu therapy) include all the nonphysical therapies available to the patient excluding psychotherapy and social casework therapy. These comprise occupational and recreational therapy, work and job-training programs

*This treatment for male and female patients was originally used at Vermont State Hospital,[4] where it was found effective.

and contact with ward personnel and students of various disciplines. The term psychological therapy is used here to mean scheduled interviews with a doctor or social worker at least one hour weekly.

The contrasting milieus were a large institution, Metropolitan State Hospital, and a small treatment center, the Massachusetts Mental Health Center (Boston Psychopathic Hospital). One contained 1,800 beds and the other 120 beds. Each has been described by Greenblatt, York and Brown[5] and will be only briefly characterized here.

The patients included in the present study were drawn from the 900 beds devoted to long-term care at Metropolitan State Hospital. The staff-patient ratio for the whole of the hospital was 1 to 6, but the ratio of staff to patients was lower on the long-term wards. The hospital staff included 19 permanent physicians and one resident. There were six full-time social workers and 10 occupational therapists. Each long-term ward contained 65 beds and was staffed by one attendant. One supervisory nurse and one treatment nurse covered several wards.

The 120 beds of the Massachusetts Mental Health Center were devoted to intensive treatment. The staff-patient ratio was 2 to 1. There were 23 permanent staff physicians and 26 residents. The social service department had 11 workers, and there were nine occupational therapists. Each ward contained 30 patients and was staffed by a minimum of one graduate nurse, two attendants and three student nurses. In addition, there were more than 800 medical and other graduate and undergraduate students yearly who had contact with patients at the hospital from one to six months.

The writers' assumption, confirmed during the study, was that this disparity in milieu, personnel and social facilities would provide a significantly different experience during the six-month period of duration of the project.

Method

The patients were divided randomly into two groups and observed in the contrasting milieus for six months. Group A was transferred at the rate of one patient a week to the Massachusetts Mental Health Center; and after transfer, each patient was started on drugs. Group B remained on the chronic wards of the Metro-

politan State Hospital and one patient per week was started on drugs. At the end of six months, Group A patients who had not been discharged were returned to Metropolitan State Hospital.*

All patients were evaluated before the study and after one week, one month and six months of treatment. If a patient left the hospital, he was re-evaluated at that time. Several methods of evaluation were used.

To determine the comparability of the two groups, all patients were scored before the study on the Lorr Multidimensional Scale for Rating Psychiatric Patients[6] and the Wittenborn Psychiatric Rating Scale.[7]

As the accompanying tabulation shows, the patients of the two groups were found to be similar on these tests and by the criteria of age, sex and length of hospitalization.

Lorr's Multidimensional Scale for Rating Psychiatric Patients

Factor	Group A	Group B
A. Depression vs. Excitement	13.0	13.4
B. Compliance vs. Resistiveness	2.9	2.4
C. Paranoid Projection	4.8	5.4
D. Activity Level	9.9	9.3
E. Melancholy Agitation	14.2	14.5
F. Perceptual Distortion	3.3	3.2
G. Motor Disturbance	9.3	9.9
H. Submissiveness vs. Belligerence	8.8	8.1
I. Withdrawal	8.6	9.2
J. Self-depreciation vs. Grandiosity	5.4	5.7
K. Conceptual Disorganization	8.2	9.3

Wittenborn Psychiatric Scale

Factor	Group A	Group B
1. Acute Anxiety	1.7	1.9
2. Conversion Hysteria	1.1	1.4
3. Manic State	1.8	1.5
4. Depressed State	4.2	4.1
5. Schizophrenic Excitement	3.0	2.5
6. Paranoid Condition	1.6	1.6
7. Paranoid Schizophrenic	3.2	3.5
8. Hebephrenic Schizophrenic	2.8	2.2
9. Phobic Compulsive	1.2	1.4
* * *		
Numbers Males	10	6
Females	14	16
Average Age (in years)	37	40
Length of Hospitalization (years)	11.3	11.9

*At the request of the hospital staff, two patients in Group A were kept at the Massachusetts Mental Health Center for two additional months.

Changes in the patients' behavior were evaluated by two methods. The first consisted of interviews and mental status examinations by a psychiatrist. A second series of assessments was made by a social psychologist on the ward, using two rating scales administered to the ward personnel, the Barrabee-Hyde Social Adjustment Scale[8] and the Bedford Clinical Rating Scale.[9] These scales evaluated the patient's behavior as to self-care, productivity, co-operation and social effectiveness.

Improvement was scaled as *Marked* (improvement in all areas of mental status and social behavior initially judged deficient), *Moderate* (improvement in over one-half of the areas of mental status and social behavior initially judged deficient), *Slight* (loss of any specific symptom or improvement in any single area of mental status or social behavior), *Unchanged,* or *Worse* (increase in any symptom or disability in any area of mental status or social behavior). Mental status changes were noted in the areas of appearance, activity, speech, mood and affect, mental content and grasp. Changes in social behavior were noted in the areas of self-care, productivity, co-operation and social effectiveness.

Determinations of degrees of improvement were made separately by the psychiatrist and social psychologist. At the end of the six-month period, meetings were held to compare evaluations. In the interest of providing maximal social therapy at the small hospital, three patients were discussed before the last evaluation. For the remaining patients, there was no discussion until the final comparison. There was agreement between the two observers in all but four of the patients and in no instance were ratings more than one category apart in the five categories used. In the four cases of disagreement, the lower ratings were used.

Results

Improvements. There was no significant difference between the degree of improvement at the two hospitals. Table 1 indicates that was true for all levels of improvement. Approximately one-third of all patients made marked (17 per cent) or moderate (17 per cent) improvement. The remaining two-thirds were slightly improved (24 per cent), unchanged (33 per cent), or worse (9 per cent).

The patients who showed marked or moderate improvement evidenced changes such as improved appearance, decreased with-

Table 1. Improvement Rate

	Marked	Moderate	Slight	Unchanged	Worse	Total
Group A (MMHC)*	4	4	5	9	2	24
Group B (MSH)**	4	4	6	6	2	22
Total	8	8	11	15	4	46

*Massachusetts Mental Health Center
**Metropolitan (Mass.) State Hospital

drawal and loss of delusions. These patients increased their participation in ward activities and undertook hospital employment. The following is an illustration:

A 44-year-old divorced air terminal traffic manager had been hospitalized continuously for seven years with the diagnosis of paranoid schizophrenia. Prior to the study, he was ill-kempt and dirty, on an open ward, did not work, was hostile and belligerent on approach and expressed many overt persecutory delusions. He received drugs, occupational therapy, assignment to a student nurse, interviews three times a week with supervised medical students for several months, and considerable kindly attention from the registered nurse in charge of the ward. At the end of six months, the patient's appearance was still unkempt, but he was working at a daily hospital job. He was friendly on approach, and was not delusional in social situations or in interviews. He had visited his mother for the first time in several years.

Many of the patients changed wards and went home for weekends, and some were discharged. None of the eight patients who were most chronically and severely disturbed at the start made this degree of improvement. On the other hand, four of the eight who were most successfully adjusted before the study made moderate or marked improvement.

The slightly-improved patients typically showed isolated changes contributing to easier management in the ward setting. Among the changes noted were less assaultiveness, bed-wetting, denudativeness, and tearing of clothes; also minor changes in appearance, loss of hyperactivity and increase of coherent speech. These were not marked enough to encourage planning for discharge, as seen in the following case:

A 31-year-old single female patient had been severely and chronically ill for nine years. Before the study, she was denudative, bizarre in behavior

and speech, enuretic, and mischievous. At the end of six months, the patient remained bizarre in behavior and speech, was still ill-kempt, but had stopped wetting and was no longer denudative or mischievous.

Those patients who became worse did not become markedly worse. Loss of interest in appearance was shown by one patient, and several of the severely ill patients became more irritable and overtly delusional.*

None of the improved patients could be considered recovered. All kept some stigmata of their illnesses, remaining withdrawn, isolated people, largely dependent on the hospital or their families.

Improvement was not related to the diagnosis or the sex of the patient.

A separate listing of the Barrabee-Hyde and Bedford Scale results is presented in Table 2.

Table 2. Scale Scores

	Bedford Scale*			Barrabee-Hyde Scale		
	Average Change	Range Low	High	Average Change	Range Low	High
Group A						
Marked Improvement	+220	181	259	+1.6	+1.5	+1.9
Moderate Improvement....	+123	106	173	+1.4	+0.8	+1.6
Slight Improvement	+ 58	18	99	+0.5	—0.2	+1.3
Unchanged	+ 38	—1	97	+0.1	—0.9	+0.7
Worse	+ 22	12	32	—0.4	—0.4	—0.4
Total Average Change ..	+17.8 per cent			+12 per cent		
Group B						
Marked Improvement	+181	78	250	+1.7	+1.1	+2.2
Moderate Improvement ...	+100	61	169	+1.1	+1.1	+1.1
Slight Improvement	+ 32	5	61	+0.3	+0.1	+0.6
Unchanged	+ 10	— 2	17	0.0	+0.3	—0.3
Worse	— 75	—25	—135	—0.4	—0.9	+0.3
Total Average Change ..	+9.2 per cent			9 per cent		

*The Bedford Scale showed a consistent but only slightly higher improvement rate at the small hospital. This difference was related to differences in hospital policy regarding week-end visits and assignment to open and closed wards.

Discharges. Although there was no difference in the rates of improvement between the two hospitals there was a significant difference in the numbers of patients discharged (Table 3). Eight patients from the small hospital were discharged and one from the large hospital, making a total of nine of the 46 patients. Discharge

*Further study is being made of the variation in areas of improvement. A preliminary finding is that the social structure of the small hospital affected the patients' dress and activity more than their mental content and grasp.

Table 3. Discharge Rate

	Discharged	Not Discharged	Total
Group A (MMHC)	8	16	24
Group B (MSH)	1	21	22
Total	9	37	46

was related to the patient's initial ward status (whether on an open or closed ward), the degree of improvement, the sex of the patient, and the family attitudes toward the patient. There was also a relationship between discharge and the use of psychological therapy.

Patients on open wards at the start of the study had a significantly greater chance of discharge than those on closed wards. Six of the nine discharged patients were on open wards at the beginning of the study. Of the 37 patients not discharged, only 12 were on open wards. At the small hospital, six of 12 patients originally on open wards were discharged; two of 12 originally on closed wards were discharged. The following case is illustrative of discharges from the closed ward group:

A 25-year-old single woman had been hospitalized continuously for six years. Prior to the study, she was on a closed ward, did not work, was ill-kempt, and hostile on approach. During the six-month period, she received drug treatment, regular weekly appointments of one hour with a social worker, contact with her doctor. In the second month, she began to take increased care in dressing and became sociable on approach. During the third month, she started working regularly as a receptionist and in the coffee shop. At this time she also began week-end visits home. She was discharged to her home and the day hospital in the fourth month.

Discharge was generally associated with marked or moderate improvement. One-half of the discharged patients showed marked improvement and an additional one-quarter showed moderate improvement. In contrast, only four of the 37 undischarged patients were markedly improved, and only six were moderately improved.

The frequency with which improvement led to discharge was strikingly different at the two hospitals. At the small hospital, all four of the patients who made marked improvement were discharged,* and one of the four moderately improved patients. At the large hospital, one of four markedly improved patients and none of four moderately improved patients were discharged.

*The fourth patient who made marked improvement was discharged after eight months.

Seven of the eight patients discharged from the small hospital were women. This preponderance of females among the discharged patients appeared to be partly the result of family attitudes. Family members generally expressed less fear of the possible aggressive actions of the women patients than of the men.

For example, the family of one 32-year-old patient said that they would be willing to take him home and did so for several week-ends. They refused to have him home permanently because they feared he might harm one of the children in the household.

The importance of family attitudes was underlined by the fact that six of the nine discharged patients went to their families. Of the three others discharged, two left for work situations where they lived in as domestics, and the other was discharged to a half-way house and remained under the supervision of the hospital.

Patients who received psychological therapy over the six-month period had a greater chance of discharge. Six of the eight patients discharged from the small hospital were seen in scheduled interviews one hour weekly by a doctor or social worker over the six-month period. Only two of the 16 patients not discharged received this treatment.

Discharge was without exception to a protected environment. One patient, as has been said, was discharged to a half-way house. Four patients, though living at home, continued to make use of day hospital facilities. Of the others, one spent all her time at home and three gained employment.

There was no relationship between discharge and the patient's age, age at onset of illness or time since onset of illness. For example, the average age of the discharged patients was 35, and of the undischarged patients 37. There was some difference in the total time spent in the hospital by the two groups. The discharged patients at the small hospital had been hospitalized an average of 9.3 years as compared to 11.9 for the undischarged patients. However, one patient was discharged after 15 years of hospitalization.

Side Effects and Toxic Manifestations

A significant degree of rigidity and tremor was noted in one-third of the patients. Upon the appearance of these side effects, there was a standard reduction of dosage. For the male patients,

the chlorpromazine was reduced to 50 mg. t.i.d. and the reserpine to 0.5 mg. t.i.d. For the female patients the reserpine was reduced to 0.5 mg. once daily and the chlorpromazine left unchanged. Two patients refused medication and received intramuscular injections for several days.

Other toxic manifestations were observed in five patients. These included a fall in the red blood cell count, elevated serum bilirubin and clinical jaundice of one day's duration, bilateral inflammation of the buttocks, acute hallucinosis and acute gastritis. Because of these complications, chlorpromazine was stopped in two patients, trihexiphenidyl hydrochloride in one patient and all drugs in another. None of these patients, however, received less than four months of drug treatment.

Discussion

The writers studied 46 chronic schizophrenic patients, divided by chance into two groups and treated for six months with drugs and contrasting social and psychological therapies. No patients recovered, but both groups showed improvement. There was no difference in the rate of improvement between the two hospitals, but there was a marked difference in the discharge rate. The small treatment hospital discharged eight patients, while the large custodial hospital discharged only one. Discharge was to a protected environment which resembled in varying degrees the patient's previous status in the hospital.

The difference in the discharge rates between the two hospitals was a striking finding. Because both groups of patients received the same drugs, it seems likely that the difference resulted chiefly from differences in the social experience at the two hospitals. There were several outstanding differences. Since the general discharge rate at the small hospital was between 80 and 83 per cent of newly-admitted patients, discharge was an active interest of personnel working with the patients. Improvement in a patient's behavior was quickly noted, and improved patients were offered increased responsibility on the ward and in work situations around the hospital. Many patients were actively encouraged to make living arrangements outside the hospital. In addition, doctors, social workers and rehabilitation workers were numerous enough to assist patients in making plans for outside financial support, occupation and recreation.

The relationship between psychotherapy, social casework therapy and discharge makes clear the importance of the personal commitment of the doctor or social worker to the patient. The ramifications of this relationship are discussed in detail in another paper.[10] The particular importance of the role of the psychiatric social worker was demonstrated, both in social casework with the patients, and in the arrangement of protected work situations outside the hospital. One patient, for example, after four months of social casework, moved out of the hospital and into a half-way house. In another case, after repeated consultation with the social worker, the family made arrangements to take home a patient hospitalized continuously for six years.

The lower discharge rate at the large hospital was associated with less emphasis on discharge there. Discharge occurred infrequently from the wards from which the patients were drawn, and the patients' place in the hospital often appeared to be an accepted fact. The hospital had relatively fewer personnel to assist patients in planning activities outside the hospital. More time elapsed between improvement and increase in responsibility. These factors appeared to influence the number of patients considered for discharge.

Because both groups received the same drugs, it is likely that the uniform improvement rate was related to the drug treatment. The attention given to the patients by the study workers must also be included as a possible factor in the improvement. In general, the writers' improvement rate falls within the range of results reported by other investigators.[1, 2] A decrease in disturbed behavior was noted at both hospitals and has been reported by others.

The relationship of drug treatment to social therapies can be discussed from several points of view. At the small hospital, intensive social and psychological therapy did not increase the improvement rate. This was surprising, and at least three explanations are available. The first possibility is some deficiency in the method of gauging improvement. Certainly such methods are only approximate, and the patients may appear less improved than their subsequent successful adjustment outside the hospital suggests. Another factor under investigation is the variability of social therapies within the milieu and of the specific social therapies that each patient received at the small hospital. Altogether

these patients received more attention to their social and psychologic disability than their counterparts at the large hospital, but the individual variation merits further study. Finally, the total effect of the two hospitals may have been more similar than was anticipated.

The relationship between drugs and improvement, and between social and psychological therapy and discharge, suggests that *both* drugs and social and psychological therapies are important in the treatment of chronic schizophrenic patients. This suggestion is being tested by a subsequent experiment in which different social therapies are compared *without* drug treatment. This may make it possible to determine the extent to which discharge and improvement are dependent on drug treatment.

The more frequent improvement shown in this study by the initially better-adjusted patients is in accord with the study of lobotomy results in chronic schizophrenia.[11] It has been generally acknowledged that the less severely disturbed patients appear to benefit more from any treatment measure. However, this study supports the widespread feeling that even chronically and severely disturbed patients can make significant changes in their functioning after many years of hospitalization.

The present study may partially explain the wide range of results of drug treatment reported by others.[1, 2] The discharge rate is often used as a significant means of evaluating treatment results. The writers' observations suggest that social and psychological therapies may affect the discharge rate of patients treated with tranquilizing drugs. Thus differences in treatment results may reflect differences in the amount of social and psychological therapies available to chronic patients treated with drugs.

It was surprising that improvement did not correlate with length of illness. Others studies have shown that in chronically ill patients treated with lobotomy, length of illness was related to improvement.[10] The present patients were more chronically ill than those in the lobotomy study, and a different treatment was employed. These differences may partially account for the lack of correlation between improvement and length of illness in the current study.

All the patients discharged remained disabled in varying degrees. These patients were discharged to sheltered environments, usually at home. The facilities that may be needed to prevent

rehospitalization and to support these patients in their progress toward health deserve further investigation.

The large percentage of patients discharged to their families and the positive family attitude toward these patients emphasize the importance of the family in any patient's future plans for discharge. This area has been neglected in the recent enthusiasm over the therapeutic results of tranquilizing drugs.

The findings of the present study have implications for the future management and disposition of chronic schizophrenic patients. If planning for chronic patients is to be realistic, certain attitudes, personnel and facilities must be present.

1. Improvement cannot be expected to be rapid, and protected living situations are needed for these patients, even with drug treatment and active social and psychological therapies.

2. Improvement must be accompanied by a step-by-step progression from ward to ward or from ward to outside activities.

3. The psychiatric social worker plays an invaluable role in helping the patient make this progress.

4. There is need for an active and alert hospital ward staff.

5. A doctor's or social worker's commitment to the individual patient is a usual requirement for discharge.

6. Family involvement is also a vital requirement.

Summary

Forty-six chronic schizophrenic patients were divided into two groups and treated for six months with tranquilizing drugs in two different settings, a large state hospital and a small treatment center.

The rate of improvement was the same at the two hospitals. Marked or moderate improvement was made in one-third of the patients. Another one-fourth was slightly improved and the remainder unimproved.

The discharge rate was significantly different at the two hospitals. Eight patients (33 per cent) were discharged from the small hospital and one patient (5 per cent) was discharged from the large hospital. Discharges were to protected environments, similar in varying degrees to the patient's previous hospital life.

The relation of drug therapy to social and psychological therapy in chronic schizophrenia is discussed. Drug treatment appeared to be related to the uniform improvement rate. Intensive social

and psychological therapy appeared to increase significantly the discharge rate at the small hospital. The implications of the present study for the management and disposition of chronic schizophrenic patients are listed.*

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AMYLOBARBITONE SODIUM INTERVIEWS WITH SCHIZOPHRENIC PATIENTS*

BY LINDSAY HURST, M.A., M.B., D.P.M.

Several authors have stressed the usefulness of interviews with the patient under the influence of intravenous amylobarbitone sodium (sodium amytal) in the diagnosis of schizophrenia. Kant (1943)[1] was able to elicit thought disorder in every one of 100 chronic, male, schizophrenic patients by this means. Cohn, Speck and Howard (1957)[2] claimed that such interviews might uncover hallucinations, persistent blocking and disorganization of speech. Myerson (1939),[3] however, claimed that, following amylobarbitone, schizophrenic patients might talk "very coherently."

Observations on Nonschizophrenic Subjects

In view of these findings, the effect of intravenous amylobarbitone sodium on subjects not suffering from schizophrenia was investigated.

Five patients who were in Shenley Hospital on account of depressive illnesses were studied. In each case, the history had been examined and the patient interviewed; only patients who had shown no evidence of schizophrenia at any time being included.

The patients had no drugs for 48 hours before the investigation, except where otherwise noted.

Each patient was asked to define proverbs before and after the intravenous injection of amylobarbitone sodium. The dosage was up to 0.5 g. in each case.

Results

Q. indicates a question by the author and *A.* an answer by the patient.

G.M.S. Aged 69. *Diagnosis*: *Recurrent Depression*

This woman was in remission at the time of the investigation. There was no evidence of dementia on clinical testing. She was having amylobarbitone sodium, 0.4 g. each night by mouth.

Q. What does, "Too many cooks spoil the broth," mean?

A. Too many people doing the same thing in different ways, they do spoil the broth and everything else as well.

*From Shenley Hospital, near St. Albans, Hertfordshire, England.

(The patient was then given amylobarbitone sodium, 0.3 g. intravenously.)

Q. What does, "Birds of a feather flock together," mean?

A. Birds of a feather flock together. There's such a lot in this hospital, isn't there, sea gulls and rooks.

Q. What's it mean in ordinary life?

A. Birds of a feather flock together—they feel more at home when they flock together.

F.G.H. Aged 45. *Diagnosis*: *Recurrent Depression*

This woman was also in remission at the time of the investigation.

Q. What does, "Birds of a feather flock together," mean?

A. People seeking the same kind of companion, people with the same thoughts, maybe interests.

(The patient was then given amylobarbitone sodium, 0.5 g. intravenously.)

Q. What does, "Too many cooks spoil the broth," mean?

A. Of course, it means too much interference—different people have their own ideas—everyone can't get to cook, and in the end it's chaos.

Q. It doesn't really only apply to cooks and broth, does it? It's a proverb, isn't it?

A. Yes, people have the same ideas and other diversions, and it all falls in chaos.

W.M.S. Aged 53. *Diagnosis*: *Depression*

This patient was in remission at the time of the investigation. Forty hours before the investigation she had 0.2 g. of amylobarbitone sodium by mouth.

Q. What does, "A rolling stone gathers no moss," mean?

A. Keep moving, you're not going to gain anything, are you?

Q. What does, "Birds of a feather flock together," mean?

A. Oh, people of the same kind, they mightn't even be nice people either.

(The patient was then given amylobarbitone sodium, 0.5 g. intravenously).

Q. What does, "Too many cooks spoil the broth," mean?

A. Oh, dear, everybody knows how to do about it, and they'd better be left with one or two doing.

Q. Doing what?

A. Too many cooks spoil the broth? Well, they'd be better with not so many.

Q. What does, "People who live in glass houses shouldn't throw stones," mean?

A. If you know how to live in a house, you shouldn't throw stones, because everyone has a right to live as they like.

S.G. Aged 41. *Diagnosis*: *Recurrent Depression*

Q. What does, "Birds of a feather flock together," mean?

A. Well, people that like to run the same life flock together.

(The patient was then given amylobarbitone sodium, 0.5 g. intravenously.)

Q. What does, "Too many cooks spoil the broth," mean?

A. Too many cooks, well, too many people in the kitchen; yes, I've experienced it myself. Too many cooks spoil the broth—too many around spoil a good meal if there's too many of them.

W.M.H. Aged 58. *Diagnosis*: *Reactive Depression*

This patient showed no evidence of dementia on clinical testing.

Q. What does, "Birds of a feather flock together," mean?

A. Well, er, people of the same tastes and culture are liable to congregate together.

(The patient was then given amylobarbitone sodium, 0.5 g. intravenously.)

Q. What does, "Too many cooks spoil the broth," mean?

A. Too many cooks interfere.

Q. It's a proverb, isn't it? What do people mean when they say it?

A. Well, too many people interfering because they can manage their own affairs best.

Conclusions

In the case of every patient, an acceptable explanation of a proverb was forthcoming before the injection. Under the influence of the drug, all the patients exhibited thought disorder of a type similar to that shown by schizophrenic patients. There was a weakness of association of ideas and a woolly vagueness in their answers. Literal meanings were attributed to the proverbs in each case.

(The patient was then given amylobarbitone sodium, 0.3 g. intravenously.)

Q. What does, "Birds of a feather flock together," mean?

A. Birds of a feather flock together. There's such a lot in this hospital, isn't there, sea gulls and rooks.

Q. What's it mean in ordinary life?

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It would seem that the elicitation of thought disorder by this means has little diagnostic significance.

Summary

Five non-schizophrenic patients who did not normally exhibit thought disorder were given intravenous amylobarbitone sodium. All of them showed thought disorder while under the influence of the drug. The value of this method in the diagnosis of schizophrenia appears diminished by these observations.

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SOMATIC COMPLAINTS AND HOMEOSTASIS IN PSYCHIATRIC PATIENTS*

BY KURT NUSSBAUM, M.D.

The concept of homeostasis originally formulated by Cannon has been expanded greatly beyond its original physiological area. It has laid the ground work for Selye's study of stress and of the general adaptation syndrome. It is of great value in the study of hormone activity (as in the case of adrenalin vs. insulin) and biochemistry (for example, acetylcholine vs. cholinesterase). It explains the dynamic balance in the vegetative nervous system (sympathetic vs. parasympathetic innervation) and in the emotional reaction of the individual (for example, the super-ego vs. id). These examples illustrate the dynamic interaction of opposing forces within the various body systems. The question arises whether a dynamic equilibrium might also exist between the forces of the psyche and the soma.

Cases in which somatic pathology and psychosis alternate or co-exist have been reported in the literature with increasing frequency (Dunbar[1]). Appel and S. R. Rosen[2] have described four cases of psychosomatic illness associated with psychosis; two patients suffered from colitis, one each from rheumatoid arthritis and bronchial asthma. Interestingly, all patients showed paranoid traits. Cowden and Brown[3] demonstrated a schizophrenic patient who obtained partial remission after a repressed somatic complaint was suggested to him. More than one organ system may be involved in patients with somatization of emotional disorders.[4] This involvement occurred in a considerable number of cases reported in this paper.

The interaction of emotional and somatic complaints in 135 Veterans Administration mental hygiene clinic patients** was studied by the writer during a five-year period beginning in 1950. Nineteen of these patients voiced complaints in two, and six in three, organ systems. Thus, the total number of complaints screened was 166. They were classified not only by the organ

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system implicated, but according to the severity of the patients' psychiatric findings as follows:

1. Psychotic: Complaints by patients who either were psychotic at the time of observation or were in remission from overt psychotic episodes. (Symbol P)
2. Borderline cases: Complaints by those close to, but with no actual, psychosis before and during observation, or complaints by patients showing latent psychotic symptoms. (Symbol BL)
3. Neurotics: Complaints by all other patients with no suggestion of psychotic traits or behavior. (Symbol N)

The somatic complaints were mostly functional (Symbol F), but some had an organic basis (Symbol O). Table 1 shows the number of complaints in the various organ systems, subdivided according to these symbols.

Table 1. Systemic Tabulation of Complaints

System*	P	BL	N	Total	O	F
Gastro-intestinal	18	39	10	67	11	56
Cardiovascular	4	9	15	28	8	20
Musculoskeletal	8	8	5	21	4	17
Headache	4	6	7	17	2	15
Genito-urinary	9	2	2	13	4	9
Respiratory and Allergic ..	4	4	3	11	2	9
Dermatological	3	2	—	5	1	4
Endocrine	2	2	—	4	4	—
TOTALS	52	72	42	166	36	130

*Or type of symptom.

As the table shows, 52 somatic complaints were associated with psychosis; 72 were by borderline patients; and 42 by neurotics. Thirty-six complaints were associated with organic changes; while in 130, even though the complaints had existed for a long time, no physical changes had occurred. Seventeen cases are reported in greater detail.

Case Reports

Case 1

Schizophrenia and Duodenal Ulcer

An 18-year-old patient developed abdominal cramps shortly after his induction into military service in World War II, while he was stationed on a Caribbean island. Within a month, he de-

veloped a full-fledged picture of catatonic schoziphrenia, vhich led to his discharge from the service in a state of spontaneous remission. He enlisted again in the navy, but developed a second episode very similar to the first, with delusions, hallucinations and ideas of reference. Again he had a remission under custodial treatment. However, his stomach symptoms returned and progressed until a duodenal ulcer was demonstrated radiologically. Psychological studies showed guilt, self-punishment, confusion in thinking, low regard for reality and marked lack of affect. He resisted psychotherapy and directed all his attention toward the treatment of his somatic complaint. Under those circumstances he made a marginal social and vocational adjustment.

Case 2

Schizophrenia and Psychophysiological Gastro-Intestinal Disorder

A 20-year-old Negro soldier, who had been seclusive since childhood and suffered frequent somatic illnesses, developed considerable conflict regarding homosexuality. He was discharged, after two years of service, with a diagnosis of psychoneurosis, but this soon changed to a complete withdrawal from reality, bizarre delusions, hallucinations and other schizophrenic symptoms. In three years of hospital treatment, including electric shock, the patient remained for a long time in a borderline psychotic state and was considered incompetent. His schizophrenic process improved gradually, even though some of his ideation remained definitely dissociated. The home environment was not conducive to improvement. His judgment remained poor. This patient's complaints for the last few years have been of a psychophysiological gastro-intestinal disorder, with abdominal cramps, loss of weight, feelings of weakness and insomnia. His blood pressure has been low, with mild hypoglycemia present. His abdominal cramps were so severe at times that he had to be hospitalized, but no physical basis was found for them.

Case 3

Backache, Upper and Lower Gastro-Intestinal Symptoms, with Pre-Schizophrenic Trends

A 28-year-old post office clerk developed severe backache while stationed on a small island off the Texas coast, where morale was

very low. Following marriage to a divorcee, he developed nausea, vomiting, abdominal cramps and diarrhea, much less severe when working at night, where there was less friction, more severe following arguments with his wife. At other times he reacted to emotional stress, with severe backache, sufficient to interfere with his work. No physical findings were connected with either the backache or the abdominal complaints. His ego structure was very shaky, with paranoid trends and suicidal tendencies, withdrawal and other pre-schizophrenic trends. Fear of a complete "nervous breakdown" brought him back to the clinic after an absence of two years. From then on, he lent himself to supportive psychotherapy and learned to understand that his physical symptoms were based on emotional difficulties. The danger of a psychotic break has been averted; the physical symptoms still occur, off and on, when he is under stress. This patient is classified as a borderline case.

Case 4

Duodenal Ulcer, Neurodermatitis and Neurotic Depression

A 28-year-old psychology trainee related his discomfort in the stomach, generalized itching, with occasional severe neurodermatitis, tension and marked feelings of inadequacy, to his experiences in the navy. He had been demoted for a minor infraction of regulations. This had aroused marked feelings of guilt, worthlessness and depression, based in part on his feeling that he had not done his duty, partly on resentment against his wife, parents, sisters and superiors. Psychological tests had shown him to be orally dependent, submissive, and unable to express hostility; and showed that, while he was in contact with reality, there was some mild impairment in ego integration. He developed a duodenal ulcer six years later. After two years of supportive psychotherapy, he became able to work out his problems on a more intensive regime. His ulcer is inactive at present, but abdominal complaints still persist in connection with emotional upheavals. The ulcer is radiologically healed. He also develops an intense generalized pruritus when relating meaningful material.

Case 5

Anxiety Reaction with Gradual Transition into Paranoid Schizophrenia, Upper Gastro-Intestinal Complaints, Varicocele and Impotence

This is the case of a 25-year-old aerial gunner, who became very anxious and tense after 15 months of flight duty. He impressed the writer as a typical "combat fatigue" case, but could not relate himself to treatment. Four years later he returned for treatment with upper gastro-intestinal complaints, such as burning, belching, etc.; the gastro-intestinal study was normal. His suspiciousness was again marked. He developed impotence following a varicocele operation. At that time, in an almost complete reversal of attitude, he began to reveal a great deal about himself in individual and group therapy. Within a year, his inner turmoil became more and more externalized, he began hearing voices, became suicidal, and began a series of numerous hospitalizations, trying to control his schizophrenic disturbance by excessive drinking in the intervals. He did not respond to electric convulsive therapy or insulin. This patient's example was a warning to the writer against too intensive psychotherapy in patients with somatic complaints.

Case 6

Arthritis, Diarrhea, Obsessive-Compulsive Neurosis, with Borderline Psychotic Symptoms

An orthodox Jewish veteran developed numerous compulsions and obsessions—regarding sin and sex—which interfered with everyday activities. He also complained of arthritic pains in his arms and back, hyperacidity and frequent bouts of diarrhea. No physical basis for his complaints was found. Psychologically he was seen to be extremely constricted, with no fantasy life but with the potentiality for violent outbursts. The possibility of a schizophrenic dissociation was present. He reacted to psychotherapy with increased shakiness and marked preoccupation with his physical symptoms, which, as he realized himself, seemed a much more innocuous way of dealing with emotional tension than mental hygiene treatment. He discontinued psychotherapy and maintained a borderline social and vocational adjustment.

Case 7

Paranoid Schizophrenia, Alcoholism and Duodenal Ulcer

A 35-year-old private first class of superior intelligence suffered in a German prisoner-of-war camp for 26 months. He showed marked emotional tension and instability, and suicidal and homicidal drives with a sadistic and masochistic core. He seemed concerned only with narcissistic gratification of his oral needs. Latent homosexuality, confusion regarding sex, marked suspicion and paranoid feelings were also present. A diagnosis of schizophrenic reaction, paranoid type, with depressive trends and symptomatic alcoholism was made. While the patient was practically inaccessible to psychotherapy, there was some improvement when he developed a duodenal ulcer in 1954. However, with the amelioration of stomach symptoms, he relapsed into his previous pattern. At present he is again in the hospital and reported to be improving under insulin, ataractic drugs and case work interviews.

Case 8

Upper Gastro-Intestinal Symptoms, Anxiety Reaction, with Autistic Fantasies

The patient in Case 8 developed nervousness and stomach symptoms following severe combat, also an increasing nerve deafness, the only residual of shell concussion. A gastro-intestinal x-ray showed slight irritability of the duodenal bulb. His marriage and vocational adjustment were very stormy. After years of supportive "off and on" psychotherapy, he finally related himself positively. He was able to work through his conflict regarding his parents to some extent, less so regarding his wife and his profession of watch repairing. Autistic thinking with grandiose ideas, distortion of realities, daydreams and feelings of confusion were allowed to remain largely repressed. The veteran himself stated that he did not want to delve too deeply into his fantasy life.

Case 9

Tension, Headache, Backache, Anxiety, with Panic Attacks and Cardiac Neurosis

A master sergeant developed marked tension, headaches, anxiety, chest pain and heavy breathing, with fear of impending death, a short time after recovering from a fracture of the cer-

vical neck of the right humerus, with partial median paralysis. He reacted to stress situations in civilian life with an increase in both anxiety and physical symptoms, mostly related to the cardiovascular system. Psychological testing showed a conflict between his dependency wishes, aggressiveness and compulsive perfectionism. He seemed a good subject for both individual and group therapy. However, despite his good relationship to the other group members, or perhaps because of it, he became more and more anixous, as he became progressively aware of his own hostility. The resulting fear of death brought about his abrupt withdrawal from clinic treatment.

Case 10

Hypertension, Overeating, Sterility and Anxiety

A 34-year-old business executive came to psychotherapy because of his elevated blood pressure, for which no organic basis has been found. His anxiety and inadequacy became very marked following his father's illness and death and the necessity for running the business under the more or less sympathetic guidance of some of his father's brothers. Psychologically, he evinced hysterical elements in a passive-dependent person, with conflicts about masculine assertion. Sterility and a tendency to overeat were also problems; the former is attributed to x-ray treatment of a rectal itch in adolescence. His elevated blood pressure was discovered in high school and forced him to abandon a promising career as an athlete. Following fairly intensive therapy, he has been able to face his problems better, but the blood pressure still remains mildly elevated.

Case 11

Backache, Anesthesia, Paresthesias and Paralysis of Legs, Kidney Stone, Hernia, Pre-Schizophrenia Disorganization

This 25-year-old private developed severe backache and numbness of both legs following an argument with his first wife. The same, apparently hysterical, conversion phenomena returned following a severe fight in which his life was threatened; however, this fight may have been a hallucinatory experience. He also reported phenomena of extrasensory perception and bizarre religious ideas. His conversion symptoms were soon recognized as protection against a psychotic break in a person overwhelmed by

severe guilt feelings, lack of reality perception and autistic thoughts, with threatening disorganization. He resumed treatment several times when he felt his hold on reality slipping, made considerable progress in vocational adjustment, but retained his hysterical symptoms. Three days after repair of a right inguinal hernia the numbness of his legs disappeared temporarily and he was able to straighten out his back.

He had an attack of ureteral lithiasis during the interval between periods of treatment. The stone was passed, but another calculus was found imbedded in the renal tissue. Urinary frequency has existed for years and, as far as is known, still persists. The pain connected with the kidney stone was typical for that condition, and different from the other back complaints.

Case 12

Scrotal Itch, Hypogonadism, Hormonal Imbalance and Mastodynia in a Schizoid, Grandiose and Bizarre Individual

This 32-year-old patient of superior intelligence has meditated about death since adolescence. He was reared in a hostile family atmosphere. In naval service, he had arguments with his superiors, was threatened with punishment but never court-martialed. He came to treatment because of his complaint of depression associated with morning nausea, a feeling of being trapped, catastrophic dreams usually dealing with a huge crustacean, but also with grandiose ideas regarding himself, and bizarre sexual fantasies. Psychological tests revealed an obsessive-compulsive, pedantic personality with oral fixation, preoccupied with decay. He was schizoid and withdrawn. Other features were a scrotal itch with factitious dermatitis and markedly diminished pubic hair. Two years after the termination of his therapy, necessitated by his moving to a distance, he reported considerable improvement of his emotional tension. He attributed this to psychotherapy and meditation while in seclusion; at the same time he developed a tumor of the left breast and intermittent painful swelling of the right nipple which were recognized as being due to hormonal imbalance. He now visits the writer at intervals from 12 to 18 months, looks physically better and reports considerable emotional improvement, even though he still leads a bizarre, solitary existence.

Case 13

Bronchial Asthma, Anxiety, Passive-Dependent Personality

This man was less bright than his brothers and sisters and was rejected by his family despite his prowess as an athlete. He developed bronchial asthma overseas shortly after his marriage to a woman belonging to another religious faith. This resulted in complete disruption of his family ties. His courtship had lasted seven years, and he finally decided upon marriage only due to his fear of being killed in the war. The severity of his asthmatic attacks was correlated closely with rejection by his wife and her family. In group therapy, he was teased unmercifully. He finally learned to express his hostility openly, and replaced some of his dependent wishes by a greater activity in obtaining fulfillment of his demands. Both his asthmatic attacks and his anxiety were greatly and lastingly improved.

Case 14

Asthma, Hay Fever, Hysterical Seizures, with Depressive Reaction

This patient developed severe anxiety and depression following the death of his youngest brother in action while he himself was in basic training. He showed marked feelings of inferiority and guilt, with resentment against his parents and his wife, whom he had been forced to marry by her pregnancy. When these symptoms improved, he developed bronchial asthma and hay fever, attributed to multiple allergies. He was markedly overweight. His condition was further complicated by hysterical seizures, which at one time were associated with a borderline abnormal electro-encephalogram. He led a nomadic existence with a friend similarly afflicted. Individual and group therapy were attempted. For a time he related himself well to supportive individual therapy, with improvement in his social and vocational adjustment. It was noted that amelioration of the physical complaints brought about a marked increase in his depressive reaction, to the extent that hospitalizations were necessary on several occasions. In group therapy, he expressed marked hostility against the other patients, but was unable to weather their attacks and had to withdraw. He is making a precarious, marginal adjustment, having practically withdrawn from psychotherapy and being seen every two weeks for medication with ataractic drugs.

Case 15

Diabetes Insipidus and Schizophrenia

This patient has been reported in detail elsewhere.[5] He reacted to emotional stress with polyuria, which was finally diagnosed as diabetes insipidus. There were three blackouts, during which he showed schizophrenic ideation with grandiose and bizarre delusions. He developed a full-fledged catatonic schizophrenia and was hospitalized for two years. Electric shock treatment brought about amelioration of both the psychosis and the polyuria.

Case 16

Diabetes Mellitus and Depression in a Schizoid Individual

This WAC developed diabetes mellitus during her brief military service. She resisted treatment by either refusing insulin or by dietary indiscretions. She was referred to the mental hygiene clinic because of depression and potential suicide, either by hypoglycemia or hyperglycemia. She was the ugly duckling in her family and also had some bizarre schizoid ideation. Psychotherapy improved her self-acceptance. She co-operated better with her diabetic treatment, began grooming herself, overcame her disappointment in love and lives now, well-adjusted, in another city.

Case 17

Myxedema, Hypertrophic Arthritis with Hypochondriasis, Hysterical and Depressive Features

This 43-year-old, colored WAC, coming from a congenial family environment, had developed a prolonged attack of rheumatic fever in her teens but had recovered. During her brief military service, she developed nervousness, fatigue and vague somatic pains. A diagnosis of hypertrophic arthritis in the cervical spine did not explain all of her complaints on a somatic basis. Later on, she developed myxedema accompanied by lethargy and loss of hair, apparently due to acute thyroiditis. In addition she complained of weakness and shortness of breath. Psychological testing revealed features of hypochondriasis, hysteria and depression. Her complaints were closely associated with difficulties with her supervisor, assuming at times an almost paranoid quality. When treatment had to be discontinued because of administrative reasons, she showed marked edema of the face and legs and marked wrist pain, even though biochemical studies had returned to normal.

Both the tabulation and the reports of some of the more striking cases reveal that the incidence of overt, potential and latent psychosis has been surprisingly high in the clinic's psychiatric patients with somatic complaints. It also has been shown that only 36 somatic complaints, however severe, were associated with organic changes revealed by physical examination, laboratory or x-ray studies. Of the 166 complaints studied, 124 were associated with either full-blown psychoses or borderline symptoms. This observation raises several questions:

1. Are the percentages of psychotic and borderline patients equally large for all organ systems?

2. Why do some patients react to the same or similar stress through somatic, others through emotional, channels, and others through both?

3. Is there evidence of a dynamic balance between the forces of the soma and the psyche which might enable the human organism to resist the outbreak of a severe disabling illness in either the physical or emotional sphere or, if the stress proves too great, to settle for a smaller degree of disability?

To obtain more detailed information about the occurrence of latent and overt psychosis in the writer's patients, they were tabulated according to the various systems enumerated in Table 1. Because of the small number in the allergy, respiratory, skin and endocrine systems, they were combined in a miscellaneous group, in which allergy seems to be the most important factor.

Tabulations By Systems

Gastro-Intestinal System

In this group, there are 18 psychotics; five were in remission; and two became psychotic during the period of observation; both of these had symptoms involving the upper gastro-intestinal tract.

Table 2. Total G. I. Complaints (67 Patients)

Symbol	Total		O		F	
	No.	Per cent				
P	18	27	3		15	
BL	39	58	7		32	
N	10	15	1		9	
Total	67	100	11	(16%)	56	(84%)

The number of patients with organic findings is comparatively small, forming only about a fifth of the patients. Organic and functional complaints can be found among the psychotics, borderline and neurotic patients. The combined percentage of psychotics and latent cases is very high (85 per cent), the percentage of clearly neurotic patients surprisingly low (15 per cent).

Among the 10 patients with lower gastro-intestinal complaints included in this table, only one was psychotic, eight showed borderline psychoses, and one was neurotic. In this small sample, it appears that the percentage of borderline psychosis is even larger than in the total group, while the percentage of frank psychosis and clear-cut neurosis is somewhat smaller.

Cardiovascular System

There are patients with neurasthenic (functional) complaints and with myocardial deficiency in this group. Three of the four psychotic patients were schizophrenic; two were actively psychotic; one was in remission; and one developed a depressive-suicidal episode of psychotic degree while under observation. He showed some latent schizophrenic traits.

Table 3. Cardiovascular Complaints (28 Patients)

Symbol	Total		O		F	
	No.	Per cent				
P	4	15	—		4	
BL	9	32	3		6	
N	15	53	5		10	
Total	28	100	8	(28%)	20	(72%)

There are no psychotics among the patients with organic findings. Symptomatology in all patients was severe, regardless of whether they developed positive physical findings or not.

Musculoskeletal System

This group comprises patients with arthritis and backache, both with and without organic changes. Three of the eight patients with psychosis were actively psychotic during the period of observation, two were in remission; and three developed psychotic episodes after their initial contact.

Table 4. Musculoskeletal Complaints (21 Patients)

Symbol	Total No.	Per cent	O	F
P	8	38	3	5
BL	8	38	1	7
N	5	24	—	5
Total	21	100	4 (19%)	17 (81%)

Again, there were no patients with mild complaints in this group, as was the case with the cardiovascular patients. However, while, in the patients with cardiovascular complaints, no psychotics with positive physical findings were noted, the picture appears almost reversed among these patients. Three of the four with organic disorders were psychotic, the other borderline. The preponderance of actual and potential psychotics resembles much more the gastro-intestinal group than the cardiovascular group.

Headache

In this group, all patients complaining consistently of headache are included. Sinusitis and head trauma were factors in the history of the two organic cases. The others suffered either from migraine or tension headaches. All four psychotic patients were in remission.

Table 5. Headache Group (17 Patients)

Symbol	Total No.	Per cent	O	F
P	4	24	—	4
BL	6	36	—	6
N	7	40	2	5
Total	17	100	2 (12%)	15 (88%)

Both of the patients with organic complaints are neurotic. Functional complaints far outweigh the physical signs in this group. Psychotics and borderline psychotics comprise three-fifths of the number of patients.

Genito-Urinary System

Complaints in this group include urinary frequency, nonspecific urethral discharge, enuresis, kidney stone, loss of libido with impotence, and varicocele. Two patients with inguinal hernia, one a

schizophrenic, the other a borderline case, were not included in this study but are mentioned in passing because of the close proximity of their organic pathology to the genital area and because of their similar emotional preoccupation. Three of the nine psychotics in this group were in remission, two became psychotic during observation, but one of these had a remission under therapy. The remaining four psychotics, all overtly so at the beginning of the writer's contact with them, obtained a remission of active symptoms under supportive handling.

Table 6. Genito-Urinary Complaints (13 Patients)

Symbol	Total		O	F
	No.	Per cent		
P	9	70	4	5
BL	2	15	—	2
N	2	15	—	2
Total	13	100	4 (30%)	9 (70%)

In this group, it is found again that all patients with organic findings were frankly psychotic. The other five had severe complaints, as did the borderline patients. Only the two neurotic patients showed somatic complaints of a mild character.

Miscellaneous Group

In this tabulation the remaining systems are combined because of their small number, and of the feeling that there is at least the common denominator of allergy and endocrine disorder. Here are patients with respiratory, dermatological and endocrine signs and symptoms. Two patients among the 11 respiratory and allergic cases had chronic asthma, five suffered from acute dyspneic attacks under emotional stress, three from hay fever, and one was sensitive to penicillin. There is a case each of neurodermatitis, psoriasis and acne vulgaris; and there are two patients with generalized pruritus without organic manifestations except for excoriations and factitious dermatitis. Among the endocrine patients there were two females, both described in the case reports (*Cases* 16 and 17), one psychotic and one a borderline psychotic. Among the endocrine complaints, is included the case of diabetes insipidus and schizophrenia, mentioned previously (*Case* 15), and a latent schizophrenic with hypogonadism (*Case* 12).

Table 7. Miscellaneous (20 Patients)
(Respiratory and Allergic, Skin, Endocrine)

Symbol	Total No.	Per cent	O	F
P	9	45	3	6
BL	8	40	3	5
N*	3	15	1	2
Total	20	100	7 (35%)	13 (65%)

*No N for skin and endocrine

The psychopathology of all patients in this group was schizophrenic, except for the three patients with respiratory difficulties, who were neurotic.

Comparison of Systems

The various groups are now tabulated in the sequence of their highest potentiality for psychotic decompensation and of their highest percentage of organic pathology (Table 8).

Table 8.
Highest P (All Figures Are Percentages)

	G.U.	Misc.	Musculo-skeletal	G.I.	Head-ache	C.V.
P	70	45	38	27	24	15
BL	15	40	38	58	35	32
P+BL	85	85	76	85	59	47
N	15	15	24	15	41	53

Highest O (All Figures Are Percentages)

	Misc.	G.U.	C.V.	Musculo-skeletal	G.I.	Head-ache
O	35	31	28	19	16	12
F	65	69	72	81	84	88

Discussion

In 167 somatic complaints of 135 psychiatric patients, comprising one-third of all patients seen and treated by the writer during a five-year period, 52 were associated with overt psychosis, 72 with borderline or latent psychosis, and only 42 with clear-cut neurosis. If one considers singly the various organ systems represented here, one finds a variation in the incidence of overt psychosis ranging from 70 per cent in genito-urinary disorders to 15 per cent in cardiovascular systemic complaints. Combining P and BL categories, one not only finds approximately the same

sequence, but also that, in this case material, musculoskeletal allergic, skin, endocrine and gastro-intestinal complaints are also most prominently associated with potential psychosis. Headache and cardiovascular disorders, on the other hand, seem least prone to be associated with psychosis.

Comparison of the relationship between full-blown and borderline and latent psychosis (P vs. BL) in the various systems conveys the following impression. In gastro-intestinal symptomatology, borderline complaints far outweigh the complaints associated with overt psychosis. This is the reverse of the genito-urinary system, where overt psychosis outbalances by far the borderline cases. Could it be that genito-urinary complaints in psychiatric patients are more likely to be associated with an overt psychotic break, while in gastro-intestinal symptomatology the psychotic potential may not progress as readily to a breakdown of emotional defenses?

The writer feels that a low index for overt psychosis, with a high index of neurosis and borderline cases may indicate some degree of protection against psychotic decompensation. This constellation is most common in the cardiovascular and headache groups, less in the genito-urinary group. If, as shown in the gastro-intestinal system, the rate of neurotics is low and the percentage of latent and borderline cases very high, the balance must be a precarious one. This supposition agrees to a considerable extent with the clinical and psychological findings in the writer's cases, particularly in patients with lower gastro-intestinal tract complaints (see *Cases* 3 and 6), who revealed a struggle between obsessive-compulsive-ruminative (anal) defenses and repressed schizophrenic material. If this assumption is plausible, then in all groups where the number of overtly psychotic patients (P) exceeds the number of neurotics (N), and where BL is also rather high, vulnerablity to psychotic decompensation must be great; and yet a precarious balance can be maintained for many years.

The question of why apparently similar dynamics are abreacted in some of these patients through somatic, in others through psychological channels, is a difficult one to answer in our present state of knowledge. Frequently, it seems, both channels are used, with a preponderance of one or the other. In this homeostatic balance the solution is usually found which prevents the outbreak of a full-blown psychosis wherever possible, and substitutes instead

somatic symptoms, which frequently do not develop into organic pathology.

Several explanations have been attempted in the literature. Rosen and Appel[6] postulate that in psychosomatic illness libidinal energy is invested in a predisposed organ, and that liberation of this energy, by whatever means, overwhelms the repressing force of the ego, with resulting psychosis. Ida Macalpine[7] considers psychosomatic symptoms rudimentary and partly-expressed emotions, but does not see them as a defense against conflict.

Melitta Sperling[8] has attempted to explain why some individuals react to stress with psychosis, others with psychosomatic illness, and still others with an alternation of the two. She explains this phenomenon by the mother-child relationship in the pregenital stage. The mother of the child with psychosomatic illness forces his aggressive impulses into somatic channels by keeping him dependent. On the other hand, the mothers of psychotic children reject their offspring completely; thus a break with reality ensues when no object replaces the rejecting mother.

It is possible, then, that there may be a correlation between somatic complaints, psychosis and the stages of early infant development. The gastro-intestinal system is intimately bound up with the oral and anal stages. Skin and musculoskeletal system complaints could perhaps be related to the acceptance or rejection of the infant by the mother who handles him in his early life. The genito-urinary and respiratory systems are also of cardinal importance in the early mother-infant relationship. They all form a sensitive barometer of acceptance or rejection.

The higher incidence of neurosis and lower incidence of psychosis in the headache and cardiovascular groups dovetail with this explanation. Complaints of headache or chest pains require a great deal of conscious elaboration and can be found only at a later stage of child development, when intellectualization has taken over at least partial control of unconscious drives. These patients are not aware of their hostility and unconscious death wishes, but they realize the fear of their own death and dissolution. Complaints in those areas are quite acceptable from a social standpoint; thus there is no need for a breakthrough of deeper unconscious feelings, which are then kept in check more readily by somatic defenses.

The quality of homeostatic balance can be assessed to some extent by the observation that physical changes are found in only 36 of the 135 cases reported here, while there are three times as many with severe but not organic complaints. This illustrates that somatization can be an effective safeguard against psychosis as well as against organic pathology. The proponents of the hypnoanalytic school, (e.g., H. Rosen[9]) are well aware of this. One must pay tribute to the resilience of the human organism against the emotional and physical storms it is called upon to weather. Even the majority of the writer's overtly psychotic patients reverted to more or less stable remissions, indicating that some degree of balance had again been re-established.

This resistance against illness could best be explained by a central agency co-ordinating emotional and physiological defenses against stress. The area in the brain where such co-ordination could most likely occur should be one where neuronal and humoral influences are closely associated. The hypothalamus and the surrounding diencephalic area offer such facilities. Important centers for all autonomic functions are located here, receiving their impulses from the cortex and the thalamus as well as from the periphery. The pituitary, the master gland, is closely linked with the diencephalon anatomically and functionally. Emotional stress can thus be adjusted to, and defended against, through mediation by this important area.

Would it not be quite plausible to assume that in this region emotional stress is deflected into either somatic or emotional channels, or both? Support for this theory can be found in the psychosis-producing effect of ACTH (Rome and Braceland[10]) and in the action of ataractic drugs on both the emotional and physical components of psychosis, neurosis and psychosomatic illness. This hypothesis will help one to understand the psychophysiological relationship of asthma and urticaria to mental illness (Funkenstein[11]), or the etiology of depressions in psychosomatic disorders, which Rothenberg[12] explains by somatic influence upon the autonomic and endocrine systems. Salvatore and Hyde[13] describe the progression of effects of lysergic acid diethylamide; first the emergence of physical complaints, followed by affect-withdrawal, thought confusion and distortions of reality, a pattern discernible in several of the writer's patients.

The vast majority of overt and latent psychotic reactions dealt with in this paper were of a schizophrenic nature. Arieti[14] has demonstrated that, in a wide sense, schizophrenia is also a psychosomatic illness. Rosenzweig[15] considers schizophrenia a disturbance of a central integrating mechanism which normally maintains a homeostatic equilibrium concerned with metabolic, endocrine and neurological responses, as well as with affective and ideational responses in the individual.

With this evidence in the literature and the writer's observations on somatic complaints in psychiatric patients, it appears plausible to assume that it is in the diencephalic area that deflection of emotional stress into either emotional or somatic channels, or both, takes place. A more detailed investigation of this thesis might lead to increased understanding of the emotional and physiological components of psychosomatic disorders, psychoses and neuroses.

Comments on Psychotherapy

In the treatment of patients with somatic complaints one has to ask one's self first whether emphasis should be placed on profound dynamic or supportive handling. If the case is clearly understood as having psychotic implications—and a larger number than heretofore anticipated seem to fall into this category—the same safeguards have to be employed which are called for in the treatment of psychotic patients. The emphasis in the beginning of therapy needs to be on establishing a firm doctor-patient relationship. Interpretations, however obvious to the clinician, should not be rushed. In the writer's experience, a combination of group and individual therapy has benefited a number of patients; in some cases, however, premature mobilization of affect led to an increase in the psychotic component. Becoming aware of this danger helped to avoid it later on.

Insulin subshock on an ambulatory basis has been employed in the writer's clinic, with considerable improvement, on patients with somatic complaints. The effect was based to a considerable extent on the satisfaction of infantile dependency needs with the aid of the psychiatric nurse; informal group techniques were also used.[16] This treatment has not been used in overtly psychotic patients.

One is aware that regression in answer to life stress, and also in therapy, is often first revealed by a recurrence of somatic com-

plaints. It has been learned that positive and negative transference reactions can be expressed through somatic as well as psychological channels. An interesting study of the meaning of specific bodily reactions in psychiatric interviews has been made by Malmo and his co-workers.[17] So far, one can only say that somatic complaints by psychiatric patients must be accepted and treated with caution, and with due respect for their defensive value against both psychotic decompensation and physical impairment. The possibility that serious psychopathology might be mobilized by upsetting the equilibrium of somatic and emotional defenses must be constantly kept in mind.

Often, one will have to be satisfied with restoring the homeostatic balance. Several patients described in this paper still visit the clinic from time to time for psychiatric and somatic checkup. Most have made satisfactory adjustments. Somatization still exists in some, but they are able to function without psychotic withdrawal from reality. The therapeutic ambition is satisfied when the patient has reached maximum ability to adjust to the external and internal stress of life. A few patients have responded gratifyingly to prolonged insight therapy after a preliminary and preparatory phase of treatment.

Although somatic symptoms have been recognized as having no psychic content themselves and are thus distinguished from hysterical conversion (Glover[18]), it is often difficult to separate them completely from symbolic meaning. Both elements may exist in patients in varying combinations at various times, as the homeostatic balance demands. Much remains to be learned before it can be determined with any degree of certainty how specific from an emotional standpoint a given somatic complaint might be. In the meantime, soundly established general psychodynamic and physiological principles must be utilized as guideposts in therapeutic work. One must come to understand each patient as an individual with a dynamic constellation all his own. For advancement of our knowledge we need the combined efforts of scientists in many fields—psychoanalysis and general psychiatry, psychology, physiology and internal medicine—whose task it will be to fit together the minute pieces of understanding gained in clinical contact and laboratory research.

Conclusions

1. In a review of 135 psychiatric patients with somatic symptoms observed in a veterans' mental hygiene clinic during a five-year period, the number of overt psychotic and borderline reactions was found to be surprisingly large.

2. Incidence of overt and latent psychosis was found to be lowest in cases of headache and cardiovascular involvement; highest in genito-urinary, gastro-intestinal, musculoskeletal, skin, allergic and endocrine disorders.

3. Somatization appears to be an effective means of maintaining the balance between psychological and physiological channels of reaction to stress, averting psychotic decompensation or the development of organic pathology in a large number of cases.

4. It is suggested that this homeostatic balance is mediated in the diencephalic area, which seems to play an important role in the genesis of neuroses, psychoses and psychosomatic illness.

5. Psychotherapy of patients with somatic complaints should be handled with caution.

Summary

In a study of 135 patients with somatic complaints, observed in a veterans' mental hygiene clinic, the author found a considerably greater incidence of overt, borderline and latent psychosis than anticipated. Physical signs developed in 36 cases only. Headache and cardiovascular symptoms seemed less prone to be associated with psychosis; genito-urinary, gastro-intestinal, endocrine, allergic, skin and musculoskeletal complaints more prominently so.

In cases where a low overt-psychosis rate contrasts with a high borderline-psychosis rate, for instance, in gastro-intestinal complaints, a precarious balance may exist for years without leading to complete psychotic decompensation. In cardiovascular disorders and headaches, where hostility can be abreacted through socially acceptable channels, the danger of a psychotic outbreak was found to be considerably less than in those disorders which are more closely related to the early infant-mother relationship (genito-urinary, gastro-intestinal, skin, musculoskeletal complaints).

The emergence of somatic complaints seems to indicate an attempt by the organism to restore homeostasis; thus keeping under control overt and latent psychotic symptoms, preventing decom-

pensation or bringing about remission of active psychosis. Somatization apparently can be an effective safeguard against psychosis as well as against the development of organic pathology. Psychotherapy in psychiatric patients with somatic complaints should be handled cautiously, always with the possibility in mind that serious psychopathology might be mobilized by upsetting the equilibrium of somatic and emotional defenses.

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A CLINICAL COMPARSION OF THREE RELATED HALLUCINOGENS

BY SIDNEY MALITZ, M.D., BERNARD WILKENS, M.D., WILLIAM C. ROEHRIG, Ph.D., AND PAUL H. HOCH, M.D.

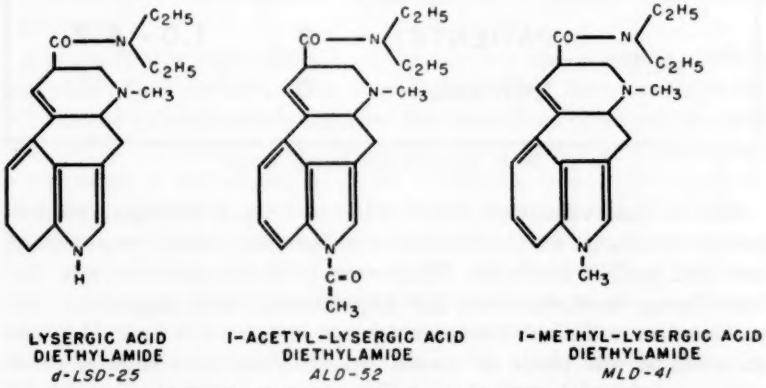
Object

Numerous reports have appeared describing the clinical effects of LSD 25. This report attempts to compare the behavioral, perceptual and autonomic changes associated with LSD 25 administration and two closely related derivatives, ALD 52 and MLD 41 in both normal-volunteer and patient groups.

Material

1. *Chemical Material.* Figure 1 illustrates the essential structural differences among the three drugs administered. It will be noted that the only difference between LSD and its derivatives is a substitution in the ring system. An acetyl group has replaced

Figure 1.



Structural Formulae of d LSD 25, ALD 52, and MLD 41

the H atom on the N atom in ALD and a methyl group on the N atom in the case of MLD.

2. *Clinical Material.* Figure 2 illustrates the distribution of subjects and the dosage range of the three drugs in micrograms or gammas per kilogram of body weight. At the time these figures were prepared, only one MLD normal subject had been studied, so that the dosage range on the MLD normals was not included

in the diagrams. Since that time eight normals receiving MLD in doses ranging from 1 to 3.0 μg. per kg. have been observed; and the findings with this group will be reported briefly in the section on results.

Figure 2.

		N	μG / KG
LSD	PATIENTS	42	0.2 - 2.8
	NORMALS	15	0.1 - 1.8
ALD	PATIENTS	10	1.5 - 3.3
	NORMALS	5	0.6 - 2.8
MLD	PATIENTS	9	1.0 - 4.2
	NORMALS	0	

Drugs, Subjects, and Dosage Range

The normal volunteers were selected from a graduate student group at a large university and were predominantly engineering, law and medical students. They were paid for their services. Before being accepted for the experiment, each applicant was screened in a clinical interview by one of the writers (S.M.), and an attempt was made to screen out all those who showed gross evidence of psychopathology. The writers erred on the side of conservatism, and only one volunteer in five was accepted for the study. A separate paper could be written about the experiences with the selection of normal volunteers. It is sufficient for the present to say that those motivated by a genuine need for money were usually freer of psychopathology and better integrated than those offering as reasons for volunteering, a keen scientific interest in the drugs, a desire to learn more about themselves or a wish to help humanity.

The patients were voluntary admissions to the New York State Psychiatric Institute. Diagnostically, they fell into the psychotic category, with a preponderance of pseudoneurotic and overt schizophrenics. They were screened in advance on the basis of the severity of illness, ability to communicate, general physical health and possible effects of the study on the future course of illness and treatment. Most of those selected were under 35, had been ill for a short period, had minimal communication difficulty, were in good physical health and had normal EEG's. No attempt was made to screen them on the basis of sex.

Method

The drugs were kept in solution in sealed ampules. The required amount was dissolved in 30 cc. of distilled water and administered orally, immediately after mixing, to avoid possible decomposition or deterioration when exposed to the air. The subject was then given an additional 30 cc. of distilled water in the same medicine glass. The whole procedure took no more than three minutes. The subject did not know whether he was getting a placebo or an active substance.

Figure 3 is a reproduction of the scoring sheet used to follow the patient's reactions. The items scored are those perceptual, behavioral and autonomic changes that have been observed as most common in the writers' experience with LSD. Degrees of responses are graded + for slight, ++ for moderate, +++ for marked, and for those functions that do not lend themselves well to quantification, √ for present and O for absent. Base-line observations were made before the drug was given, and observations were repeated at regular intervals thereafter by the physician in charge of the study for a total of eight to 10 hours. At the outset, they were made every 15 minutes. Later in the study, as the reaction subsided, the interval between observations was 30 minutes. With all three drugs in both normals and patients the onset of action was usually between one-half and one hour, with the peak of response in one and one-half to two hours after the drug was administered. Effects began to diminish spontaneously in three to six hours, and usually had disappeared in eight to 14 hours, if uninterrupted by an antidotal agent. Additional descriptive material was recorded by the observer on the back of the check sheet. Vital signs were recorded at regular intervals by a nurse who remained

Figure 3.

Patient's name_____ Drugs used and Dose 1. _____ Date _____

Age _____ Sex _____ Weight _____ 2. _____

3. _____

Diagnosis _____

Symptoms	Before Drugs Baseline	After (Time:)	After (Time:)	After (Time:)
Drowsiness				
Pallor				
Flushing				
Nausea				
Vomiting				
Dizziness				
Abdominal Pain				
Faintness				
Pupillary Dilatation				
Pupillary Contraction				
Tremor				
Euphoric				
Paranoid				
Depressed				
Bland				
Anxious				
Sexual Content				
Erotic Feelings				
Verbal Productivity				
Motor Activity				
Frank Language Deviations				
Blocking				
Visual Hallucinations				
Auditory Hallucinations				
Smell Hallucinations				
Taste Hallucinations				
Touch Hallucinations				
Somatic Delusions				
Synesthesias				
Macropsia				
Micropsia				
Depersonalization				
Spatial Disturbances				
Hunger				
Time Disorientation				
Place Disorientation				
Time Prolonged				
Time Shortened				

Key:
0 - Absent
\+ - Slight
++ - Moderate
+++ - Marked
✓ - Present
Pupil reactivity

Drug Study Data Sheet

in the subject's room throughout the experiment. The nurse also recorded the subject's verbal productions while the doctor was out of the room. The procedure was carried on in a dimly lit room, with the windows blacked out by heavy curtains, to maintain relative constancy of illumination. This was of importance for

some of the psychological tests and facilitated the appearance of hallucinations and illusions, since it is well known that in subjects receiving LSD these phenomena do not develop as well in brightly lighted surroundings.

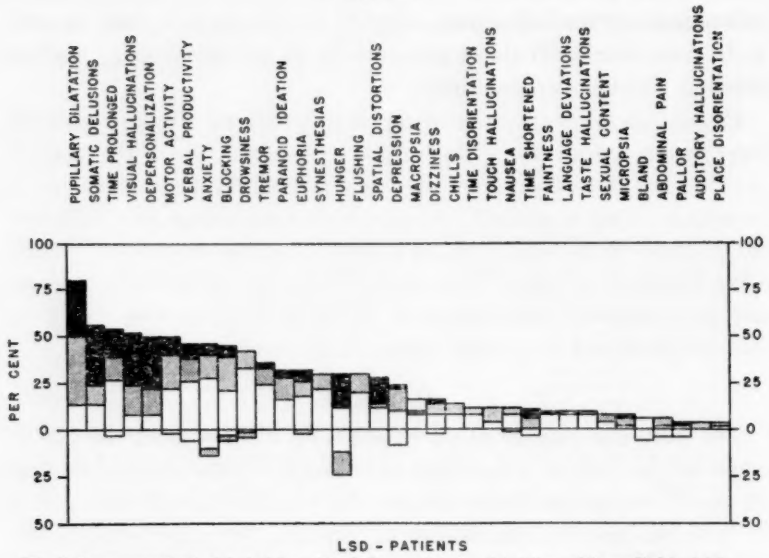
Psychological tests measuring perceptual and motor changes were used, rather than projective techniques, since the former provide greater objectivity and less possibility for varied interpretation. Depth perception was measured using two different techniques. Time sense was measured using the method of "Operative Estimation" and "Time Reproduction." Space does not permit an extensive description of these techniques now but they will be described in greater detail in another paper.

Results

The data are presented on histograms which depict the differences in the various subgroups listed on the data sheet. The first group of histograms shows the results with each drug individually in both the patient and volunteer groups. The later histograms point out the comparison among the various groups. Histograms for the MLD volunteer group and for comparison of this group with the other drug groups are in preparation.

Figure 4 represents the LSD patient group. The white area stands for a slight response, the stippled area for a moderate response and the heavy black area for a marked response. The results are listed in the order of decreasing percentage response, i.e., the most common response being listed first and the least common last. It will be noted that pupillary dilatation was the most consistently observed phenomenon. In the patient group, it was the most common finding with all three drugs. In the normals, it was the most common finding with LSD and next most common with MLD and ALD. Somatic delusions, a sense of time-prolongation and visual hallucinations were the next most common findings in the LSD patient group, with auditory hallucinations and disorientation for place the least prevalent—and almost negligible. The bar graphs below the zero line in Figure 4 indicate the percentages of patients in which particular functions become less than the base-line level during the course of the experiment. For example, hunger, while complained of by almost 50 per cent of the patients at the start of the experiment, became less than the base-

Figure 4.



Black bars=marked (+++); stippled=moderate (++); white=slight (+)

line level and even was replaced by a loss of appetite in over 25 per cent of the LSD patients.

Figure 5 illustrates the pattern of response to LSD in the normal volunteer group. The LSD normals showed less base-line anxiety and a much higher incidence of euphoria than the LSD patients. They blocked less and were more verbally productive. Under autonomic responses, there was somewhat greater reactivity in the normals in regard to flushing, dizziness and nausea, but pupillary dilatation was the same in both groups. Disorientation for time, frank language deviations, touch hallucinations, depression, chills and pallor, seen in the LSD patient group, were not observed at all with the LSD normals. It must be kept in mind, however, that the normal group was made up of only 15 subjects, while the patients numbered 42. These findings may have to be modified somewhat as more normals are observed.

Figure 6 illustrates the responses of the patient group receiving ALD. Several of the responses seen with the LSD patients were not observed. These included blocking, frank language deviations, hallucinations of taste, and abdominal pain. Pupillary dilatation,

Figure 5.

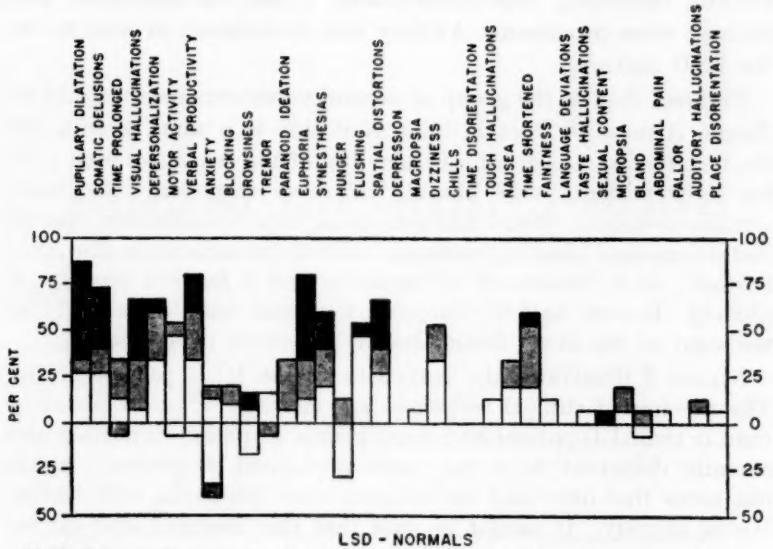


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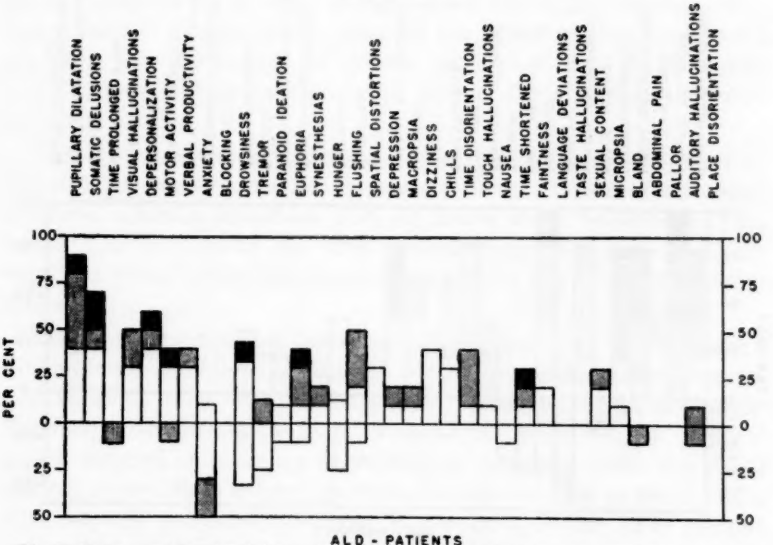
Figure 6.



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somatic delusions, depersonalization, visual hallucinations and flushing were prominent. Anxiety was diminished, in contrast to the LSD patients.

Figure 7 depicts the group of normal volunteers receiving ALD. Again, it must be kept in mind that this is a small group, but the trend is extremely interesting. Ten of the responses seen with the LSD patients were absent. Of those responses remaining, somatic delusions, visual hallucinations, depersonalization, spatial distortions and blocking were particularly prominent in the ALD normals, in a framework of euphoria and a marked paucity of anxiety. In over half the subjects, the usual base-line anxiety at the start of the study diminished as the study progressed.

Figure 8 illustrates the responses of the MLD patient group. The number of clinical responses are less and of lesser intensity than in the ALD patient or normal group. Pupillary dilatation and somatic delusions were the most prominent responses. Again one notes that over half the subjects show euphoria, with lessening of anxiety. It cannot be said that this lessened over-all re-

Figure 7.

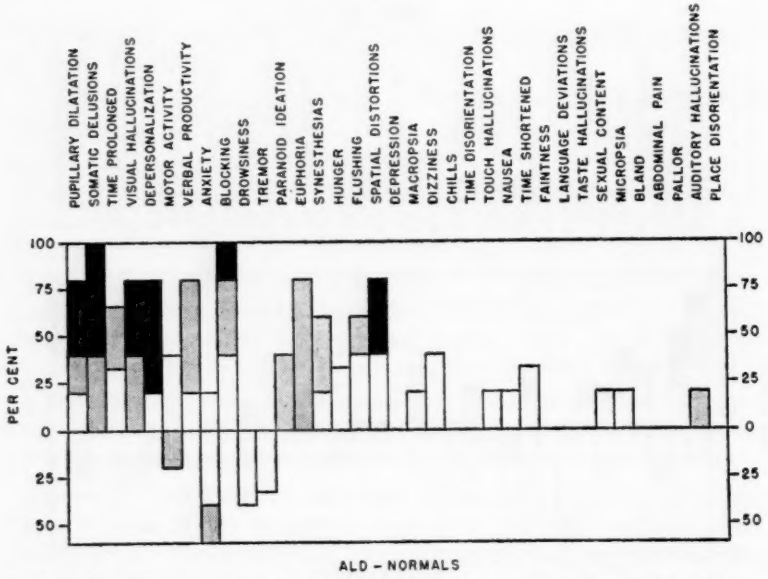

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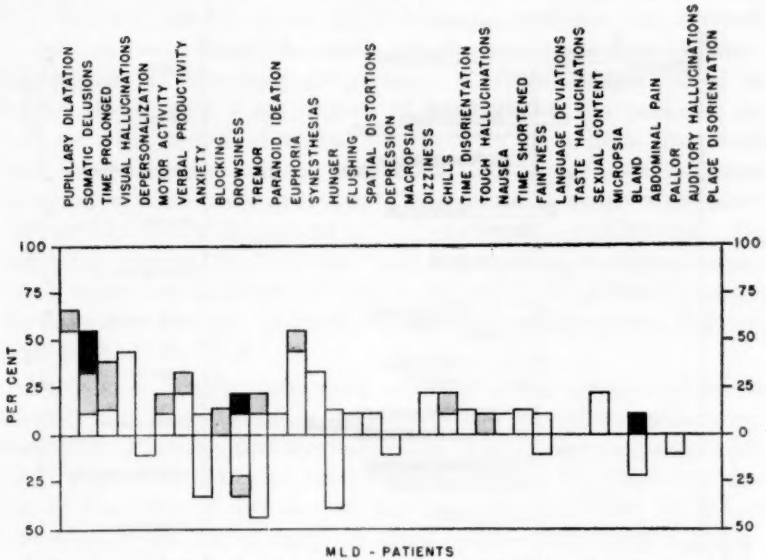
Figure 8.



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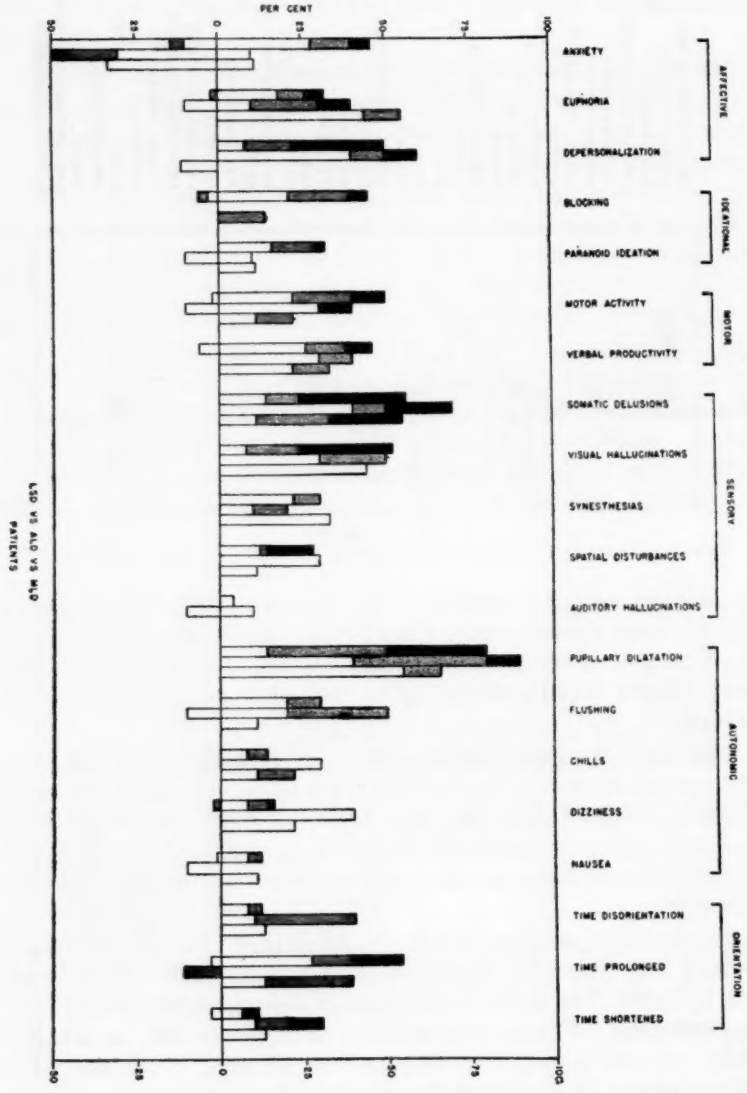
sponse was due to a lower dosage, since the MLD patient group had a higher dosage range than all the other groups (1.0 to 4.2 μg,/kg.). The diminution of certain responses from the base-line level follows a pattern similar to the ALD patient and normal groups.

The MLD normal group consisted of eight subjects. The data has not yet been reduced to histogram form. In six of the eight subjects, somatic delusions and euphoria were prominent, with lessened anxiety, as in the MLD patient group. Only two subjects reported visual hallucinations, and they were of slight to moderate intensity.

Figure 9 compares all three patient groups. The responses are divided into affective, ideational, motor, autonomic and orientation spheres. The over-all comparison does not reveal strikingly characteristic differences in patterns of response, but, on detailed study, several interesting observations emerge. With the ALD patient group, time seemed shortened to 40 per cent of them, while time seemed prolonged to over 50 per cent of the LSD patient group and to about 42 per cent of the MLD patient group. Con-

Figure 9.



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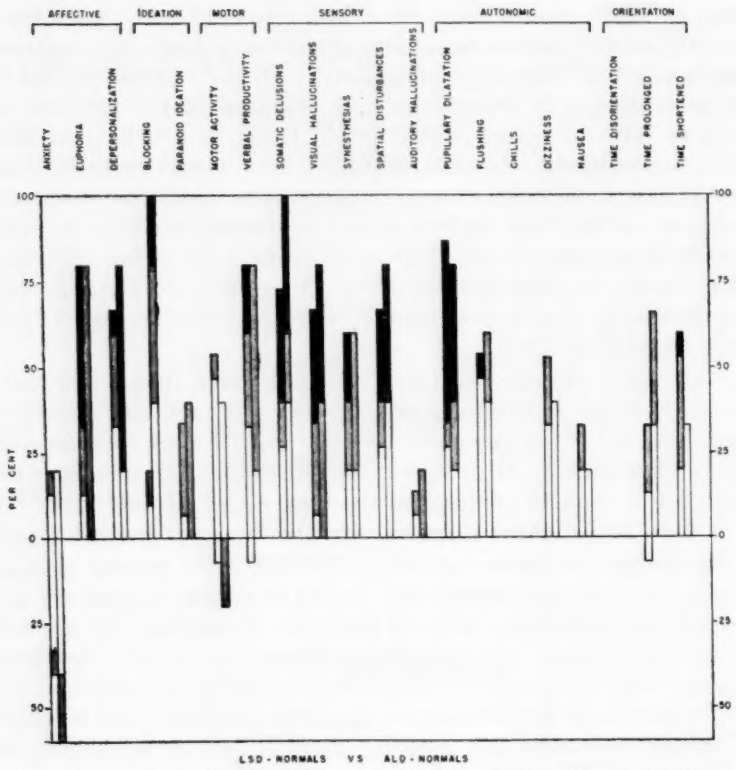
siderably less anxiety was evoked by MLD and ALD in patients than by LSD; and in those MLD and ALD patients who showed anxiety at the start of the study, there was a diminution in baseline anxiety as the study progressed. All three drugs tended to be associated with some degree of euphoria in the patients, as well as with increased verbal productivity in a little less than half the patients. Somatic delusions and visual hallucinations occurred with all three drugs, but the somatic delusions were most frequent in the ALD patient group, closely followed by the LSD and MLD groups. On the other hand, in regard to visual hallucinations, while the incidence was about the same in all three groups, the intensity became progressively less as one progressed from LSD to ALD to MLD.

Autonomic effects were seen with all three drugs and were roughly similar in incidence and intensity for pupillary dilatation and chills. Flushing and dizziness were slightly more common with ALD than with MLD or LSD. Disorientation for time was observed less than 15 per cent of the time with LSD and MLD but was seen almost three times as often in the ALD patient group.

Figure 10 compares only the LSD and ALD normal groups, since, as previously mentioned, the MLD normal figures are not yet all available. The over-all patterns of response for the two drugs are similar. One striking difference is in the ideational sphere, with 100 per cent of the ALD normals showing blocking and only about 20 per cent of the LSD normals. The blocking strikingly resembled the thinking disorder seen in schizophrenia, with marked disturbances in association and a poor performance in abstract thinking, as shown in attempting to explain proverbs. Of the ALD volunteers, 70 per cent complained of time seeming longer, while over 60 per cent of the MLD volunteers felt that time seemed to be passing more rapidly than it actually was. Neither group of normals showed any disorientation or chills. All (100 per cent) of the ALD volunteers experienced somatic delusions as compared to 73 per cent of the LSD volunteer groups.

Insufficient psychological test data have been collected to be considered statistically significant. A complete report will be published at a later date when more subjects have been studied. Certain trends are in evidence, however. In both patient and volunteer groups the ability to perceive depth accurately seems to worsen with all three drugs in direct relation to dosage, when compared

Figure 10.



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to pre-drug trials. If this trend continues to be evident, it would tend to confirm objectively the common subjective experience of spatial distortion.

Attempts by the subjects to estimate time intervals were strongly influenced by distracting fantasies and poor motivation. In one experiment, the subjects were asked to estimate a minute by holding down a button for what they thought was that period of time. In another, an interval of a minute was demonstrated to them and they were asked to reproduce it. In the patient group, MLD appears to affect time estimation less than LSD or ALD. Time estimation in patients and volunteers seemed to be equally affected by ALD. Subjects were also asked to squeeze a dyna-

mometer because of frequent reports of feeling strong or weak under the influence of these drugs, but there were no significant differences in the readings between the two groups before and after drug administration.

Comments and Conclusions

It was the writers' observation that patients required higher dosages of all three drugs than normals to induce psychotomimetic phenomena. In both patients and normals, 1.5 to 2.0 times more ALD or MLD than LSD was required to evoke clinical symptoms.

No new qualitative responses were observed with ALD or MLD that had not previously been recorded with LSD. But quantitative differences were observed and have been elaborated. Patients developed a wider range of psychotic-like symptoms than normals with all three drugs. Normals tended to be more verbally productive, better able to describe their symptoms, more euphoric, less anxious and much better aware of the relationship between their symptoms and the drug used.

The responses of the ALD normal group were of particular interest because of the intensity of the thinking disturbance, body image distortion and affective incongruity. But many more subjects will have to be studied before the findings in this small sample might be shown to be consistent.*

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HALLUCINOGENIC AND NARCOTIC-LIKE EFFECTS OF POWDERED MYRISTICA (NUTMEG)*

BY GEORGE WEISS, Ph.D.

Introduction

Nutmeg, officially known as myristica, is a dried, ripe, nut-like seed, divested of its hard, brown, shining seed-coat. It has an aromatic odor and is pungent to the taste. The volatile oil obtained from powdered nutmeg has medicinal and toxic properties. It is used as a flavoring agent, a carminative, a local stimulant to the gastro-intestinal tract, and, externally, as a counter-irritant. Myristicin is believed to be the poisonous ingredient in the volatile oil. Considerable narcotic power has been attributed to this chemical substance. In the lower animals, it has been reported to cause dilatation of the pupils, unsteadiness of gait, subsequent sleepiness and slow respiration. A loss of reflexes has been reported to occur when more than ample doses of nutmeg oil have been administered. Hepatic necrosis in cats has been reported by Dale.[1]

Cushny[2] reported a case of a human fatality. Power and Salway[3] cited a case in which the patient experienced drowsiness and subsequent stupor for several hours, the patient alternating between delirium and sleep after two drachms of powered nutmeg had been administered. Green[4] recently reported a case in which a patient became disoriented and delirious after taking 18.3 grams of finely ground nutmeg in an effort to induce delayed menses. The effects lasted six days and included 12 hours in a semi-stupor, periods of sleepiness, episodes of excitement and agitation, and physical symptoms of vomiting, dizziness and numbness.

Doses of medicinal preparations have ranged from about five to 20 grains.[5]

Myristica in Correctional Settings

In the correctional setting of prisons and reformatories, inmates will frequently attempt to obtain, through devious means, commercial and medicinal substances for *sub rosa* activities. Pure lemon and vanilla extracts, barbiturates, tranquilizers, and even

*From the New Jersey State Prison, Trenton, N. J. Acknowledgment is gratefully made to Roy C. Calogeras, Ph.D., and Eugene Revitch, M.D., of the New Jersey State Diagnostic Center, Menlo Park, N. J., for many helpful comments and criticisms.

tripelennamine hydrochloride[6] have been self-administered, orally and intravenously, with the hope of achieving euphoria, and at least momentary escape from one's self and the depressing, immediate surroundings. Inmates have sniffed even carbon tetrachloride for the same purpose. Powdered myristica, which contains diminished quantities of nutmeg oil, is included among the inmates' repertory of alleged euphoria-inducing drugs.

Current Exploratory Study

It is widely believed by inmates of correctional institutions that the drug action of nutmeg produces reactions similar to those of legally prohibited drugs which are considered habit forming and addicting. Although its illicit application is most certainly not widely known in the extramural setting, personal communications by prisoners are to the effect that it is used, not only in the community, but was also used in the armed forces in Europe during World War II. While the purpose of its use has been known, knowledge of its psychological effects has been lacking.

Subjects

Ten male inmates of the New Jersey State Prison, ranging in age from 23 to 42, were subjects in this pilot study.* Seven of them had had extramural experience with heroin and marijuana, one with benzedrine and marijuana, one with benzedrine, and the tenth with excessive use of alcohol. Six subjects had learned of the unorthodox use of nutmeg during their imprisonment, whereas the others learned of it in the community. Of the 10 subjects, introspective reports were obtained chiefly from eight subjects, since two developed toxic psychoses as a result of chronic ingestion of ground nutmeg.

Results

Frequency of Intake and Principal Reaction

In Table 1 are listed some of the verbatim reports which clearly embody the inmates' reasons for using powdered nutmeg.

*Because of the limitations in this prison setting, this study is based on verbal reports of the subjects, rather than on an organized experiment. So many inmates misused nutneg that it was entirely removed from the prison; and a controlled study to validate its effects was impossible.

Table 1. The Number of Times Powdered Nutmeg Was Taken and the Principal Reaction to Incarceration of 10 Subjects After a Period of Use Varying from One Day to Three Years

Case	Number of Times Taken*	Principal Reaction to Incarceration
1	10	"As far as the world's concerned, you don't care about nothing. That's a day I don't know I'm in this place."
2	475	"...minimize my trouble...get away from the feeling of being here."
3	4	"You're here but you don't care. Your own and other people's problems do not worry you; nor do you think of them."
4	1	"don't give a damn."
5	2	Subjects 5 through 8 expressed the feeling that the edge of
6	52	harsh reality was dulled, that the weight of the world was
7	5	lifted, and that worries were no longer troublesome.
8	30	
9	1	This inmate felt more disturbed by his awareness of being incarcerated.
10	†	This inmate developed a toxic psychosis.

*The number represents the number of times a dose of powdered nutmeg was taken and denotes use over a scattered period, rather than on successive days.

In nine of the 10 cases, it can be stated that the inmates' primary objective had been achieved after the ingestion of powdered nutmeg. Eight to 12 drachms were taken orally, and were followed by hot or cold liquids such as milk, water, tea, or coffee. The effects of these large dosages differ substantially from those cited by Power and Salway.[3] While some of the inmates experienced drowsiness, none experienced stupor or delirum. No uniformity was reported with respect to the onset of effects, which ranged from 10 minutes to four hours, and with respect to the duration of action, which ranged from a minimum of four to five hours to a maximum of 24. Sollmann[7] also had reported that the effects of nutmeg appeared in one to six hours and usually cleared in 24 hours.

Although the effects of powdered nutmeg are mainly narcotic, it is not unusual for subjects to experience excitement and some motor stimulation. It is conceivable that Subject 9 would have experienced a similar psychological reaction to incarceration, had his dose been better regulated to offset his disturbing physiological side effects. In the two instances of acute brain syndrome (Cases 2 and 10), the psychotic reactions were due to nutmeg intoxication. One of these two inmates (Case 10) had spent ap-

proximately half his life incarcerated, and the other was serving a life sentence.

Comparison of Effects with Other Drugs

In Table 2 are listed verbatim reports of the subjects regarding their reactions and feelings under the influence of powdered nutmeg as compared with other drugs.

Table 2. Comparison of Effects (Reactions, Feelings, etc.) of Powdered Nutmeg With Other Drugs: N=10

	Type of Drug		
Case	Marijuana	Heroin	Alcohol
1	"One reefer will get you three times as high as nutmeg. It slows your actions down." He becomes drowsy and relaxed but not desirous of sleep.		
2			Similar to whiskey; gives light feeling... "makes you high, drunk." He becomes drowsy, feels sleepy and restless.
3		"...makes you drowsy like heroin does; makes you want to sit down and drop your head; makes you feel relaxed; get a drowsy high."	
4	"It made me feel light, like with a marijuana cigarette."		
5	Like marijuana, it made him feel nervous, tense, scared.		
6	"...feel like you're floating."		
7	"It gives you life, gives you pick-up. It all goes to the head. It's an enormous feeling."		
8	He felt buoyant and light, like "walking on soft dirt."		
9	It was like "when you've been drinking but are not drunk... light-headed feeling made me tense... on edge."		
10	Acute brain syndrome with psychotic reaction due to nutmeg intoxication.		

Although seven subjects equated the effects of powdered nutmeg with those of marijuana, it is of interest to note in their verbatim reports that there is no clear differentiation between the effects of marijuana, heroin, alcohol, and nutmeg. All the subjects (except subject 10) experienced an elevated, lofty feeling accompanied at times by drowsiness and at other times by excitement.

Principal Side Effects

The varied side effects of powdered nutmeg are listed in Table 3.

In practically all instances of recall, thirst was increased. This result is understandable in view of nutmeg's pungent taste. Hunger was found to be largely diminished or unaffected. In one instance (No. 7), the increased hunger was for sweets. With respect to nausea, abdominal spasm, and vomiting, Subject 4 experienced these reactions after ingesting two cupfuls of powdered nutmeg within 15 minutes. No significant trends were noted with respect to the other reactions reported in Table 3. The results of blood and urine analyses made on Subjects 2 and 10 were negative for significant abnormalities. Since these analyses were only routine, the presence of toxic substances was not ascertained.

Table 3. Side Effects of Powdered Nutmeg: N=10

	Cases									
Reactions*	1	2	3	4	5	6	7	8	9	10
Thirst	I	?	I	I	I	?	I	?	I	?
Hunger	D	?	U	?	D	U	I	I	U	?
Nausea		X		X					X	
Abdominal spasm				X						
Vomiting				X						
Constipation	X									
Tachycardia					X					
Insomnia					X				X	
Drowsiness	X	X	X							
Sex fantasies	?	?	U	?	I	I	I	?	?	?
Time taken to reach masturbatory climax	I	?	?	?	D	I	D	I	?	?
Poisoning		X								X

* I Increased
D Decreased
U Unaffected as to increase or decrease
? No recall as to increase or decrease
X Reaction occurred

Prevailing Mood and Dominant Attitude

Table 4 shows that the mood experiences and attitudes toward interpersonal relationships varied under the influence of powdered nutmeg.

It is noted that the moods experienced are at opposing ends of the continuum and are not significantly related to the type of attitude displayed toward interpersonal relationships. That an inmate was in a happy mood was no assurance that he would not prefer to encyst himself.

Table 4. Prevailing Mood and Dominant Attitude Toward Interpersonal Relationships Under the Effects of Powdered Nutmeg: N=10

Case	Mood	Interpersonal Attitude
1	"You're far from cheerful... melancholy, maybe."	"You don't mind being around people."
2	Developed toxic psychosis.	
3	"Puts you in a dreamy mood, dream about good things."	"Want to be alone" (but does not mind presence of others).
4	"Gay, happy mood."	Indifferent to presence of others.
5	Apprehensive, tense, nervous.	"Puts you off by yourself."
6	"Puts you in a happy mood."	Indifferent to presence of others.
7	"Feel cheerful, very cheerful, jolly."	"Makes you want to be around people."
8	"Puts you in a pensive mood."	"Makes you want to be by yourself, not associate with anybody."
9	"Sort of melancholy."	Indifferent to presence of others.
10	Developed toxic psychosis.	

Attention and Concentration

Table 5 lists the individual reactions with respect to the effect of powdered nutmeg on attention and concentration.

Table 5. Effect of Powdered Nutmeg on Attention and Concentration: N=10

Case	Attention and Concentration
1	Considers his powers of attention and concentration to be sharper.
2	States that music, for example, becomes more enjoyable.
3	No recall.
4	Says he becomes "more alert to what is happening around you."
5	Says he becomes more aware of what is going on around him.
6	No recall.
7	"Makes you very alert... conscious of what's going on about you."
8	Sharpens the powers of discrimination, such as "when you are listening to music you hear more than you do when without drugs... gives you a hi-fi effect."
9	States that his awareness of and feelings about ongoing things are more intense.
10	Developed toxic psychosis.

Seven inmates claimed a heightening and sharpening of their powers of attention and concentration. In two instances, there was no recall as to any specific change, whereas in a third instance the subject was completely noncommunicative, since he had retreated into psychosis.

Transitory Affective and Cognitive Disturbances

Table 6 lists some transitory hallucinogenic effects of powdered nutmeg.

In six of the 10 cases, there were no transitory affective and cognitive disturbances. However, Subject 3 claimed that while he was drug-free he had observed another inmate who had used nutmeg run head-on into the prison bars. That inmate was briefly hospitalized and released as being without psychosis. It is noted in Table 6 that No. 9 displayed a near-delusional interpretation of his surroundings. He recovered from this effect within 12 hours. Subject 1 said that his dreams were always chromatic under the influence of nutmeg. Two inmates developed psychotic reactions due to nutmeg intoxication. Their psychoses lifted within six months.

Table 6. Transitory Affective and Cognitive Disturbances Resulting from Powdered Nutmeg: N=10

Case	Dose*	Times Used	Time Interval**	Unusual Reactions
1	2-3	10	6 years	Dreams were always in bright colors.
2	2-3	475	3 years	Inmate developed toxic psychosis, was confused, disoriented, and hallucinated in auditory field.
3	2-3	4	2 weeks	None
4	2 cups	1	1 day	None
5	2-3	2	2 days	None
6	2-3	52	1 year	None
7	2-3	5	3 years	None
8	2-3	30	4 months	None
9	2-3	1	1 day	Inmate had weird feeling while lying awake at night that someone might attack him in the dormitory.
10	?†	?	10 months	Inmate developed toxic psychosis, was confused, disoriented, and hallucinated in auditory and visual fields.

*In tablespoonfuls. The minimum dose was 2 to 3 tablespoonfuls.

**Period covered by use.

†Both dosage and times used were unknown.

An attempt was made by staff physicians of the state hospital to produce a toxic psychosis in case 2 by having the patient ingest ground nutmeg in capsule form. This man received a total of 14 nutmegs in nine days and did not develop psychotic features during this experimental period. The original intent of the experiment, however, was partially vitiated, since the patient had been informed that he was taking nutmeg daily in capsule form. It is not known whether he received his daily dose of one and one-half nutmegs distributed throughout the day or in one quantity. Further, it is not known whether complete blood and urine analyses were made daily during the study, to determine whether there were any shifts.

Discussion of Results

While powdered nutmeg is easily accessible in most households, in correctional settings it is a substance that is usually safeguarded against theft for other than economic reasons. The high premium placed upon its possession—quantities of it are equivalent to currency in the inmate barter system—is attributed to its alleged euphoria-inducing action.

Introspective Reports

In view of this significant departure from the customary and officially prescribed use of powdered nutmeg, introspective reports on its effects were obtained from nine inmates of New Jersey State Prison. A tenth inmate, included in the study, was noncommunicative as a result of psychosis due to nutmeg intoxication. Most of the men had extramural experience with heroin and marijuana, as well as with alcohol, and had used powdered nutmeg for varying periods while they were incarcerated.

Doses of two to three tablespoonfuls of powdered nutmeg tended to narcotize the subjects against the unpleasant experience of incarceration, without a blurring of the boundaries between the self and the outer world. The effects were considered to be essentially similar to those of marijuana, although comparisons with heroin and alcohol were also cited. In most instances, a feeling of being transported aloft was experienced, accompanied by a feeling of drowsiness in some cases and excitement or stimulation in others. The onset of action ranged from 10 minutes to four hours, and the effects lasted a minimum of four to five hours to a maximum of 24.

Symptoms of physiological addiction were not reported. No positive correlation was obtained between the "light feeling" and the mood experience. Nor did the mood experience, be it gay or melancholy, for example, serve as an index as to whether inmates would prefer to promote social contacts or encyst themselves from them. It was also reported, in most instances, that the powers of attention and concentration were sharpened and that the ability to enjoy certain pastimes was enhanced. In all instances of recall, thirst was increased, and hunger was largely diminished or unaffected. The various side effects reported were nausea, abdominal spasm, vomiting, constipation, tachycardia, insomnia, and drowsiness.

Two cases of acute brain syndrome, with psychotic reaction due to nutmeg intoxication, were reported. Each of the two subjects had chronically ingested powdered nutmeg over a long period. Routine blood and urine analyses did not establish the presence of the poisonous ingredient. Aside from the cases of nutmeg poisoning, the hallucinogenic effects reported were transitory and of brief duration.

Implications for Further Research

Whether the states of drowsiness and excitement, reported in Table 2, represent different points on a continuum, depending upon the dosage, needs to be explored further. It would also be of value to determine, under controlled conditions, whether the introspective claims of improvement in powers of attention and concentration are supported by behavioral tests. According to the chemical analysis of nutmeg oil by Power and Salway,[8] eugenol and isoeugenol are found in nutmeg in small percentages. While myristicin has toxic power, eugenol has soothing power as an anodyne. It may be of value to explore whether eugenol, freed of its natural associations in nutmeg, is euphoria-inducing when it is administered in ample doses.

Summary

Powdered nutmeg, depending upon the dose and duration of use, not only has narcotic and intoxicating power but also euphoria-inducing and hallucinogenic properties. The varied side effects include symptoms such as nausea, abdominal spasm, vomiting, constipation, tachycardia, drowsiness, and insomnia. The psycholog-

ical and physiological reactions usually end within 24 hours. Fluctuations in mood experience and in attitude toward interpersonal relationships are reported to occur. Powers of attention and concentration are considered to be sharpened, and one's ability to enjoy pastimes to be enhanced. In most instances, the effects of powdered nutmeg are considered to be similar to those of marijuana.

ADDENDUM

Since this paper was written, an additional case has come to the author's attention. This subject had learned about powdered nutmeg when he was an inmate, at the age of about 30, of a New Jersey reformatory, several years ago. He had had extramural experiences with alcohol, marijuana and heroin for some 10 years and is now serving a five-to-seven year sentence for possession of heroin. There were two instances of ingesting myristica, three weeks apart. The data to follow are those shown in Tables 1 through 6 for the original 10 subjects.

On the first administration of two or three teaspoons of nutmeg in hot water, the subject reported that his principal reaction to incarceration was that "momentarily during that period nothing mattered too much." The second administration—half an eight-ounce glass of powder in a full glass of hot water—resulted in a toxic psychosis. The subject reported that the first time, three hours after taking the nutmeg, he got "a reefer high," felt relaxed and was in a "gay mood." He had "a heroin high" three hours after that, and wanted to sleep but couldn't. As the effects diminished, he felt "pretty sick, like the aftereffects of a heavy drunk." He was nervous, tense and shaky, and "scared" that he "might pass out." On the second occasion, he got a "reefer high first," then got "higher and higher," with the toxic psychosis following.

The subject reported that thirst increased, and hunger decreased; he had abdominal spasms, constipation, insomnia and symptoms of poisoning. He recalls no increase or decrease in sex fantasies. It has already been reported that he felt relaxed and gay; and he recalls having enjoyed pleasant memories. For the first few hours, he didn't mind having other people around, then "didn't want to be bothered," wanted to be by himself, "felt pretty tense." He says he was more alert after the dosage, could concentrate (play cards) better, enjoy music more. It took three or four hours for the reaction to set in; it lasted about 24 hours; and the effects the subject liked best were much like those of marijuana.

On the occasion of the toxic psychosis, the subject was confused and disoriented in all spheres, and appeared lethargic. He had chills, with a body temperature of 96°F. The laboratory studies and examinations showed results within normal limits. Before the confusion and disorienta-

tion, it had seemed that "the room was going around" and that, while he wanted to raise his body, "it seemed that nothing would move." He recovered from the psychosis in 48 hours and was then cheerful and cooperative.

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Communication—

THE FUNCTIONAL CRITERION FOR THE EVALUATION OF THERAPY OF MENTAL DISORDERS

BY JOHN LANZKRON, M.D.

The statistics of psychiatric therapeutic results, particularly in schizophrenia, are often misleading. Besides frequent failure to consider length of illness, and subsequent inclusion of short-lasting schizophrenic reactions with those of chronic schizophrenias, there is no common denominator for evaluating results. At present, four basic approaches are in use, of which three are of standard value in statistical reports. The fourth, Rado's adaptational frame of reference, using such medical terms of function as "compensated" and "decompensated," is clinically descriptive and useful for teaching but is not widely used as yet in statistics.

The main statistical approaches are: (1) the "positive" medical approach, describing "improvement" on discharge as compared to condition on admission, which is used as a baseline for judging "improvement"; (2) the "negative" medical approach describing condition on discharge in terms of "impairment" of the premorbid personality; and (3) the "functional" approach, using the term "social recovery" or "social remission," and introducing the criterion of "social functioning" (functioning in the community) as a measurement of therapeutic results.

The "positive" medical approach, used by the New York State Department of Mental Hygiene, is strictly formulated in the *Statistical Guide;* the principles of the "negative" approach are laid down in the *Manual of Mental Disorders* of the American Psychiatric Association.

A schematic outline of the "positive" and "negative" psychiatric approaches might read as show in the table.

Of the "functional" approach, Leo Alexander notes: "A social remission or social recovery describes a patient who has sufficiently improved to resume his social and occupational activities to the full, but who has either failed to achieve insight or still retains some subjective complaints or disturbances... Complete recovery denotes the restoration of the mental state of the patient to what

POSITIVE APPROACH (According to *Statistical Guide*, New York State Department of Mental Hygiene)			NEGATIVE APPROACH (According to *Manual of Mental Disorders*, American Psychiatric Association)	
Recovered:	Return to mental state before psychotic episode	=	No impairment:	Return to premorbid personality

Improvement from condition on admission		Impairment from premorbid personality	
			Percentage of incapacity
Much improved:	Warrants discharge	Minimal impairment	10 or less
Improved:	Improvement not enough to warrant discharge	Mild impairment	20 to 30
		Moderate impairment	30 to 50
Unimproved:	From condition on admission	Severe impairment	over 50

he and his relatives agree is the former 'own best self,'... An unimproved patient... is one who is either still in the hospital or a home invalid, or one who... has failed to advance with treatment to a higher grade of improvement."

The social criteria of the "functional" approach are the only objective measures of therapeutic results at present available; social recovery, or social remission, measuring the degree of the patient's social functioning in the community, can be objectively ascertained. As objective criteria, these measures also avoid overdramatization of new "miracle" drugs, as well as unjustified pessimism.

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EDITORIAL COMMENT

ELIXIR VITAE, ELIXIR SANITATIS

The robed and bearded medieval alchemist was the prototype of today's biochemist, as well as of today's nuclear physicist. Besides his research for the philosophers' stone with which to transmute dross to gold, the alchemist sought the *elixir vitae*, the element to prolong life and youth, and like the present-day Congo witch doctor, attempted to discover the magical substance (or, note it well, the magic ritual) which would rid man of his anxieties, his fears, his delusions, and of his periodic possession by evil spirits.

Today's biochemist alchemist has given us an elixir which scientists have been seeking for centuries. It is the *elixir sanitatis*, the elixir of mental health, of sanity. If its varied ingredients do not bring eternal youth and life, they do bring release from some of the most painful and most recalcitrant of all the afflictions known to man.

The alembics of the modern alchemist have given us substances which will route schizophrenia. Other medicaments dissolve depression. Several compounds melt anxiety. With these things, we are curing neuroses, schizophrenia and depressions of endogenous origin. The word "cure" is used advisedly and subject only to the observation that all human pronouncements are fallible, including this. But "cure" is what is being accomplished. We have all seen miracles in patients we have known for many years. We have before us the figures of tremendously increased admissions, tremendously increased releases and substantially shrinking populations in the hospitals of New York State. Even though other factors have been invoked in this reversal of the trend, those who are actually handling the patients recognize that the answer lies in these potent phrenopraxic drugs.

The New York State Department of Mental Hygiene pioneered in the trial and use of these preparations. In 1952, Nathan Kline was set up as director of a research facility at Rockland (N.Y.) State Hospital where, among other things, the first large-scale application of reserpine was instituted the following year. One member of this QUARTERLY's editorial board had been assigned to convince a budget examiner of the validity of this research facility.

The examiner was completely nonplused when told bluntly that the tab would amount to $50,000 annually for the lifetime of the director—but that petty price for real knowledge of schizophrenia soon mushroomed grossly. This unit flourished, and although reserpine has limited use in psychiatry today, this was a pioneering effort.

In 1954, Herman C. B. Denber implemented the first major project with chlorpromazine at Manhattan (N.Y.) State Hospital. There is no need to recite the history here. The use of other phenothiazines followed, and their gratifying results have changed the trend of mental disorder. At Marcy (N.Y.) State Hospital, Anthony Sainz, following Nathan Kline with iproniazid, did some of the early clinical testing of phenylethylhydrazine, which has won a place among the first antidepressant drugs ever known to man.

During October 1954, the clinical directors of the New York State Department of Mental Hygiene met at Creedmoor (N.Y.) State Hospital to compare their experiences with the large-scale use of these phrenopraxic agents. As a result of their enthusiastic reports, it was decided that the employment of the drugs should be spread widely. Here it can be acknowledged that at this meeting the director of one of the state hospitals made the public admonition that psychiatrists should hurry to use these products before their efficacy wore out! Of course he was not alone in this view then.

The official October 1954 conference of the New York State Department of Mental Hygiene was also devoted to this subject. Kline and Denber each presented papers.* Harry J. Worthing described a series of patients at Pilgrim (N.Y.) State Hospital; John R. Whittier told of the experience at Creedmoor; Christopher F. Terrence discussed the Rochester series, and Henry Brill estimated that more than 1,000 patients had been under treatment with chlorpromazine at 16 of the New York state hospitals. There was unanimous agreement that full use of these drugs should be implemented, with provision for full interchange of information and for expanded research effort. In his opening remarks, Denber had said, "If psychiatry is compared to other branches of medicine,

*Kline, Nathan: Present status of serpasil and related compounds in psychiatric therapy. Denber, Herman C. B.: Present status of thorazine in psychiatric therapy. Reports read at the Bi-Monthly Conference of the New York State Department of Mental Hygiene, New York City, October 1954.

it will be found to be woefully lacking in laboratory and clinically-tested pharmacologic compounds that can be applied to the various syndromes with some hope of influencing the patient's condition in a lasting way. All treatments in psychiatry are still handicapped by the basic unknown, namely, what is the etiology of the psychoses, and for that matter of the neuroses."

Sainz,* not long ago, in discussing the efficacy of psychotherapy in the psychoses, emphasized the underlying metabolic fault which yields only to metabolic treatment. In the same vein, Ian Stevenson,** in a paper to be published in this QUARTERLY, maintains that over the years, we have been mistaking mental content for etiology and blinding ourselves to the real dynamics of the psychoses. Sainz applies this same reasoning to the psychoneuroses (and to the psychosomatic disorders) as well as to the psychoses—which development was hopefully anticipated many years ago by a very great man in our field. To Sainz' conclusion, may be added that of George E. Crane, in another paper pending publication in THE PSYCHIATRIC QUARTERLY.† Crane, a psychotherapist himself, concludes that drug treatment by itself is specific for the psychoses and psychoneuroses and that psychotherapy is indicated only for personality disorders—either existing as separate symptomatology or concomitant with neurosis or psychosis. It may be noted here, also parenthetically, that one member of this QUARTERLY's editorial board has been treating patients with ulcerative colitis successfully with chlorpromazine. However true this all may be, we still, as good doctors combine pharmacotherapy and other somatic treatments, as indicated, with psychotherapy—in a therapeutic community. Further than that, one is puzzled that effective dosages and frequency of complications actually vary with race and culture! For reasons of necessity, pharmacotherapy, it may be added, is the sole method of choice in Haiti, Liberia and in Pakistan (where Nathan Kline has acted as consultant).

At the 1954 New York conference, after presenting two large series of patients treated successfully at Rockland State Hospital

*Sainz, Anthony (with Cammer, Leonard; Altschule, Mark D., and Saunders, John C.): Drugs and the psyche. Paper read at the annual scientific meeting, Gracie Square Hospital, New York City, March 30, 1960.

**Stevenson, Ian: The role of wishes in the origin of dreams and the psychoses. Publication pending. PSYCHIAT QUART., July 1960.

†Crane, George E.: Some questions concerning the nature of psychotherapy in nonhospitalized patients treated with psychopharmacologic agents. Pending publication, PSYCHIAT. QUART., July 1960.

with reserpine and chlorpromazine, Kline ended his discussion with: "I think—although again, I should not be doing this—that there is no question, as Dr. Brill says, that we are probably entering a whole new era in the treatment of psychoses."

Out of this expanded application of these phrenopraxic drugs has also come better knowledge of the metabolism, biochemistry, and pharmacology of the psychiatric disorders. More basic knowledge and more effective drugs with more precise actions are increasingly available. But here a word of caution is indicated.

The magic pill still needs a master hand. Unfortunately the average general practitioner cannot differentiate many neurotics from many schizophrenics, cannot often identify a depression, may not catch the manic flavor of a moderate excitement, nor perceive mild organic psychopathology. Better training in the medical curriculum and more psychiatric consultation might provide partial answers.

New York State pioneered in insulin coma therapy with Sakel in the 1930's, in electric shock therapy with Kalinowsky in the 1940's and in drug therapy in the 1950's with Kline and Denber.

"New York State has everything." But it still needs very much more research personnel, facilities, equipment and money, for the day of the final breakthrough is at hand.

LETTER TO THE EDITOR

ABOUT "CONFESSIONS OF A MASK"

To The Editor of THE PSYCHIATRIC QUARTERLY:

Sir:

Your clippings of a review of *Confessions of a Mask* came to our office yesterday, and after reading it, I am prompted to protest. Certainly I don't wish particularly to defend it as "great literature"; as a novel it has its glaring faults and limitations. I do feel, however, that, despite the specialized nature of your periodical, some appropriate concern should be given to the nature of things as they really are—in this instance, to art and the art-and-responsibilities of reviewing.

With this as preamble, let me say that, as much as it may surprise your reviewer, most novelists, and artists in general, do not wish, necessarily, to mirror the psychoanalytic world and its various allied provinces. It amuses me—and I think I can claim some good familiarity with both the field of personality and that of world literature—that your reviewer should, by implication at least, set standards for the novelist that do not rightly fall into his domain, and that he should have expectations and place demands on the novelist that are not, aesthetically, his concern. *It is important, no matter what the point of departure or arrival, that one give due consideration to the artistic purposes of an artist.* Here, Mishima *is* writing a novel, and is *not* "explaining" his hero's homosexuality, "using the form of a novel"—not any more than Hemingway is explaining Jake Barnes' impotence in the form of a novel.

Your reviewer complains, too, that "connections" are not "worked out." Well, why should they be? The author is *not* writing up a case-history. He correctly alludes to the "intuitive" springs of Mishima's creation; here, it seems to me, is that point at which one might start to deal with what the novelist *has* achieved. (Here, too, I hasten to say, one might hope to glean intimations concerning the nature of artistic creation itself.)

Of course, what one is aware of is the fact that such reviews appear in your magazine "for the psychiatrist." Yet, it is possible to delimit the *value* of this work to the field and still deal with the work on its own terms! Why take the tone that was taken—and which inevitably leads to distortion? Little is done to service either psychiatry or literature, per se, when "snobbery" (The modern sin—one of the mythological-Freud's ten commandments—is ignorance about "psychoanalytical concepts": Thou shalt not worship other gods!) regarding psychoanalysis and its offshoots beclouds the necessity for good, fair reviewing. Strange as it may appear in our

time, the human race—and art, too—was not made in the image of Freud, or Sullivan, or Horney, or Fromm, or Parsons, or whomever.

Novels (thank goodness!) have a value beyond the question concerning the "light" they may or may not throw to supplement and substantiate psychoanalytical theories. It is, in the final analysis, sheer audacity to belittle a work because it does not fall into line with the latest theories.

I feel that something must be done to counterbalance the tendency—all too prevalent today—to overemphasize the world of psychiatric investigations. Systems of thought, theories of action, and what-have-you, are not reality itself; they are more like the mirrors in carnival houses—which only approximate, grotesquely, the human image.

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Editor's Note

Mr. Rizzo's protest is so temperate and so well-reasoned that one is tempted to say on behalf of all our book reviewers, *"Peccavi, peccavi."*

The Quarterly, as he observes, is a periodical of a "specialized nature"; its reviewers see the world through psychiatric spectacles; and the pictures they themselves present of the books they review are for other wearers of psychiatric spectacles. It might be argued that neither reviewer nor reader could see very well if he discarded them. It might also be argued that "the psychoanalytic world and its various allied provinces" do not form an artificial world but—if "allied provinces" is heavily emphasized—do show the real world, as most of our reviewers and our readers see it. (That there are exceptions is to be noted and also emphasized.)

The primary interest of this journal in fiction is in the personality and character that the author portrays. Psychiatry has long drawn on legend and literature for its models: Oedipus, Hamlet, Faust, Macbeth, Alice in Wonderland. The best-known, and probably the most accurate studies of psychological and social phenomena are likely to be fictional: Daniel Defoe's *Moll Flanders* and Alexandre Kuprin's *Yama: the Pit,* as pictures of prostitutes and prostitution; Dostoevski's *Crime and Punishment* and Hawthorne's *Scarlet Letter* as exercises in remorse. We think of Stephen Crane's *Red Badge of Courage* and Eric Maria Remarque's *All Quiet on the Western Front* as splendid studies in war psychology. There are Theodore Dreiser's *An American Tragedy* (far better known than the actual case of which it is a fictional report) and Robert Travers' recent *Anatomy of a Murder* as accurate portrayals of modern crime and its aftermath.

The Quarterly is of the opinion that not only do most people derive their ideas, from reading, of how the human mind works and of how

human beings behave; but that most of today's professionals in psychiatry and psychology derived their (perhaps since discarded) primary ideas likewise. The professional psychiatric interest in fiction, therefore, is in how soundly it conveys human psychology, human motivations, human situations. There is incidental interest, of course, in how it depicts our profession—from Mickey Spillane's ignorant (he didn't seem to know psychiatrists are doctors) presentation of a naked blonde psychiatrist-murderer, her belly full of slugs from Mike Hammer's gun, to the two "mad" psychiatrists of John Blackburn's *A Sour Apple Tree.* There is the other side of this, of course, Hannah Lees' plausible and sensitive use of the technique of a child's play therapy to detect a fictional criminal, and Charlotte Armstrong's recent suspense-tale demonstration of the havoc that can be wrought by amateur psychoanalysis.

Perhaps we, reviewers and readers, overemphasize our interests in psychodynamics; there can certainly be fine writing and moving character portrayal on a flimsy personality structure. Radcliffe Hall's *Well of Loneliness,* as this journal has noted before, can be cited here. Its exposition of Lesbianism was as out-dated and fallacious as anything in Krafft-Ebing; but it was so beautifully and sympathetically written that it was as widely read for its literary qualities as for its sensational subject; and it probably did considerable damage to impressionable readers. The editors can recall one well-known colleague who—disregarding the principles of free speech and a free press—contended angrily that a law should be passed to prevent circulation of such poisonous propaganda for homosexuality.

This QUARTERLY's reviewers are individuals with individual reactions; but the general point of view is QUARTERLY editorial policy. It is, to leave pure literary assessment to such excellent reviewers as those of *The Saturday Review, The New York Times* and *The New York Herald-Tribune,* and, without by any means disregarding literary quality, consider that our own primary interest is in whether a work of fiction reflects, not the theories of Freud, Adler, Horney or Sullivan, but what we consider to be psychological realities. If it does this, intuitively by preference, we can recommend it to the public and to each other, as a decade or so ago we were recommending enthusiastically Mary Jane Ward's *Snake Pit,* as a contribution to human understanding. If it fails to reflect human capacities, aspirations, dynamics, our reviewers aim to say so; but they also aim to mention compensating literary qualities, if any. It should be remarked that all truly great literature of which we are aware, from Homer to Sophocles to Shakespeare, to Goethe, to Mark Twain and Thomas Hardy, does intuitively reflect human realities. No realistic reader expects to find the dynamic understanding of a Shakespeare behind every flyleaf, but that is what our reviewers hope for.

BOOK REVIEWS

Neuropharmacology. By HAROLD A. ABRAMSON, M.D. 285 pages with bibliographies, and index. Cloth. Josiah Macy, Jr. Foundation. New York. 1959. Price $5.00.

This book represents four research reports and their discussion. One of the interesting experiments reported is the finding that cyanide and azide produce behavioral effects in Siamese fighting fish suggestive of LSD-25. It is suggested that perhaps LSD acts by interfering with oxidative metabolism. Other papers concern research with taraxein with new supporting data; and an intensive study of the structure and peripheral action of phenethylamines.

This volume represents transactions of the fourth conference sponsored by the Josiah Macy, Jr. Foundation, in Princeton, in 1957. Research studies were intensively examined, and the informal nature of the meeting is preserved in the book, so that the reader may participate in the give and take of the lively discussions.

A Skeptical Psychoanalyst. By KENNETH MARK COLBY, M.D. 145 pages. Cloth. Ronald. New York. 1958. Price $3.75.

Colby's skeptical psychoanalyst is the analyst who subjects everything he hears, from himself and fellow-analysts as well as from patients, to critical inquiry. Colby's book is the application of skeptical examination to theory and the application of the results to technique. He includes two very practical chapters on "proceedents" and the logic of analyzing, writes a lampoon on the analysis of historical figures, and presents a serious discussion of sex differences as revealed by a statistical treatment of 800 dreams.

This book appears to be of practical worth not only to the younger analysts, for whom some of it was written, but to anybody engaged in psychotherapy. It is stimulating and also entertaining.

Schizophrenia. An Integrated Approach. ALFRED AUERBACK, editor. 224 and viii pages with 10 illustrations and index. Cloth. Ronald. New York. 1959. Price $5.50.

This volume consists of papers presented by 15 contributors at the symposium of the Hawaiian divisional meeting of the American Psychiatric Association in 1958.

The authoritative contributions form an integrated multidisciplinary approach, and emphasize recent neurophysiological and biochemical aspects, as well as communicative and intrafamily aspects of schizophrenia. Psychotherapy and drug treatments are thoroughly discussed. This book is an excellent reference source for everyone seriously concerned with seeking a better understanding of schizophrenia.

History of Psychiatry. By JEROME M. SCHNECK, M.D. 196 pages with indices. Cloth. Thomas. Springfield, Ill. 1960. Price $5.50.

Schneck's *History of Psychiatry* is an excellent book for its principal purpose, the teaching of medical school undergraduates; and the author is a good writer and teacher. His book is an outline and bibliography, rather than an exhaustive text; it leans heavily on such previous histories as those of Lewis and Zilboorg; and it is, to some extent, a critical review of the latter. In addition, the author has listed and made use of much recent material from the professional journals; his references form an excellent bibliography for anybody wishing to do extensive reading on his subject; and the young resident physician should find them invaluable for this purpose.

In this reviewer's opinion, the book is so strongly oriented toward the psychological approach that it might more accurately be described as an outline of the history of medical psychology than of psychiatry. Schneck devotes little space and comparatively few bibliographical entries to drug therapy and other physiological and physical treatment methods. The result is that the student interested in these developments from the time of Sakel to today may fail to get a comprehensive view of their historic and present importance. The author apparently recognizes this, but explains his cursory treatment by saying that these measures "are much too close for historical evaluation." On the matter of a fair perspective, there will also be readers who will consider that Schneck's personal interest in hypnosis has led to the devotion of undue space to this procedure.

These considerations notwithstanding, this is a very valuable little text. Aside from its worth in teaching (and it could be used in schools of nursing as well as in medical schools), it is a very handy source for dates, for historic outline and for an extensive, though not exhaustive, bibliography. It belongs in every psychiatric library.

Modern Clinical Psychiatry. By ARTHUR P. NOYES, M.D. and LAWRENCE C. KOLB, M.D. 5th edition. 694 pages including index. Cloth. Saunders. Philadelphia. 1958. Price $8.50.

The fact that this textbook is now in its fifth edition is ample evidence of its acceptance. It is one of the best books for the student, because, despite the broad subject matter it covers, it is still very concise and clear. It is also an excellent reference book for the trained psychiatrist. The only adverse criticism is that the authors seem to "sit on the fence" too much. An author should certainly try to present the major theories and postulates and the divergent current opinions, but his views should be stated too. The senior author has behind him a wealth of experience and is generally highly regarded in the world of psychiatry, so that a more definitive exposition of his own views would be welcome.

The Effect of Advancing Age Upon the Human Spinal Cord. By L. Raymond Morrison, Stanley Cobb and Walter Bauer. 127 pages. Cloth. Harvard University Press. Cambridge, Mass. 1959. Price $6.00.

The aspect of this book which is likely to be of greatest practical value is the conception that the physiologically "normal" spinal cord, as it becomes accessible through ordinary channels to the hospital pathologist, may harbor a considerable amount of what may be considered to be "abnormal" morphological detail. As might be expected, such alterations increase with age after the third decade. Evidently the half-century mark is critical from both the qualitative and quantitative points of view, with regard to structural alteration.

The frame of reference employed, with regard to the morphology of the cord, is borrowed from H. C. Elliott's studies, published in the *American Journal of Anatomy* during the 1940's. In this, the conventional topographically-oriented names for cytologic groupings, and thus "columns," are replaced by arbitrary numbers. Such a system, although not the same one, was used by Romanes and presupposes familiarity by the reader.

The attempt, which has always failed, to reproduce Nissl sections by low power photomicrographs, is even more than usually muddy and the editorial work betrays a certain unfamiliarity with anatomical convention. A mysterious reference to "fine subdivisions" should evidently be "five," and "Wistar" has been allowed to slip through as "Wister." Neurobiotaxis, which Herrick long labored to drum out of town, is appealed to as a well-known law. Puzzlement is expressed over morphologic issues for which answers have been proposed by even rather old and important writers, for some of whom, like Bolk, one looks in vain. "Tan bodies" referred to by the authors without illustration or further description, except as "hyaline in character," have not previously been encountered in the literature by the present reviewer.

The Private Memoirs and Confessions of a Justified Sinner. By James Hogg. 230 pages. Paper. Grove. New York. 1959. Price $1.75.

Hogg, a minor Scottish writer (1770-1835), published this book in 1824; it was rediscovered years ago by André Gide who wrote an introduction. Gide is enthusiastic: "The personification of the Devil in Hogg's book is among the most ingenious ever invented... It is the exteriorized development of our own desires, of pride, of our most secret thoughts... Hogg's hideous hero, however is not mad; he premeditates his murders in full consciousness... he is possessed." Gide had naïve ideas about murder and defense mechanisms in general. The book deals with an obviously schizophrenic person, who misuses the religious controversies of the eighteenth century in Scotland. It is difficult to read.

Reaching Delinquents Through Reading. By MELVIN ROMAN. 116 pages. Cloth. Thomas. Springfield, Ill. 1957. Price $4.50.

The author, formerly director of group psychotherapy, New York City Court of Domestic Relations, advocates "tutorial group therapy" for delinquent children with reading difficulties. The book is of some interest to educators and child psychiatrists.

The Biological, Sociological and Psychological Aspects of Aging. By KURT WOLFF. 95 pages. Cloth. Thomas. Springfield, Ill. 1959. Price $3.75.

This is mostly a review of selected chapters of the literature; the author is rather optimistic.

Dr. Goebbels. By ROGER MANVELL and HEINRICH FRAENKEL. 306 pages. Cloth. Simon and Schuster. New York. 1960. Price $4.50.

A radio and television director and writer and a chess writer have collaborated on a biography of Nazi Germany's propaganda leader, Joseph Goebbels. The result is a detailed, carefully-researched biography which traces Goebbels' history and some of his beliefs and opinions from his childhood as a cripple to his suicide in besieged Berlin. The inner motivations of the man are not disclosed to any extent; and quite possibly the material for a study of Goebbels' inner life is unobtainable. The authors unfortunately have attempted to supply the lack.

They describe an early meeting of Goebbels with Hitler in Berchtesgaden: "In the lovely mountain sunshine Hitler seemed a god. During the days that followed Goebbels underwent a deep, transfiguring experience as a member of the intimate circle. Love was what he needed, and love was what he found." And again with the war lost: "The report was laid before Hitler, who at the sight of it collapsed once more into another of his soul-destroying rages which revealed the madness inherent in his nature and reduced his face and body to a bloodshot, trembling monstrosity. ... there was nothing to be done but to stand, pale and exposed, until the screaming and raving had spent themselves and calm was somehow restored." This last scene was in the last bunker in April 1945 where Hitler and the last of the Nazi faithful had gathered after their childish disappointment that Roosevelt's death had not taken the United States out of the war. The usual question arises as to how much of this is history, how much interpretation, and how much intrapolation. Possibly it is impossible to write on such a subject analytically and without strong affect; but Goebbels was one of the most baffling as well as one of the most important of the psychopathic personalities who manipulated Nazi Germany to destruction. It is a pity that a depth study cannot be made.

Clinical Studies in Culture Conflict. By GEORGENE SEWARD, Ph.D. 598 pages. Cloth. Ronald. New York. 1958. Price $7.00.

If we accept the broad idea that personality is what a person is and does, then we cannot overlook anything in the dynamics of an individual. In the selected cases chosen in this book, culture conflict plays a significant role in each presentation. The question one is left with is: Is culture conflict the significant measurable, variable or could there be some other stress variable equally significant that would have created the need for therapeutic help? In all cases the concept of a weakened ego structure seems to suggest that these people would have been in trouble regardless of culture conflict.

The editor of the book points out that this is a diagnostic manual. It is also aimed at clinical workers, because experimentalists would decry the lack of controls and the methodology. Aside from criticism based on the question of good experimental technique, the book is fascinating reading. It reads like a novel and should be of value to the professional as well as the tyro in the field of behavior. To add quality to the material, some very important names are found among the contributors—Lauretta Bender, M.D., Charlotte Buhler, Ph.D., Sol Nichtern, M.D., and Jerome Singer, Ph.D. The question of culture-conflict dynamics is not answered in this volume, but the case material is such that cultural complications are demonstrated. The chapters include a selected number of ethnic groups. Among those covered are selected cases of the Negro, the Indian, the Puerto Rican, the Japanese, and the Jew. Those who use this as a text will find a chapter devoted to the tests that were selected and their applicability. When available, test results are also presented.

Symposium on Medical Editing. By HUGH CLEGG, M.A., M.D., F.R.C.P., NEWTON BIGELOW, M.D., MORRIS FISHBEIN, M.D., GEORGE ROSEN, M.D., Ph.D., and RUSSELL L. CECIL, M.D. International Record of Medicine, July 1960. New York. Price $1.20.

This is a new contribution to a series of symposia on medical writing and editing brought out by MD Publications. The contributors are the editors of the *British Medical Journal*, THE PSYCHIATRIC QUARTERLY, *Excerpta Medica*, and the *American Journal of Public Health*, besides the author of a standard medical textbook. The symposium takes up the greater part of the *International Record's* July 1960 issue.

Clegg discusses some of the principles and problems of medical editing; Bigelow, some of the basic requirements of medical writing; Fishbein, some of the actual procedures of editing; Rosen, some of the viewpoints governing selection and editing of manuscripts; and Cecil, some of the reasons for the use of medical textbooks and some of the principles of writing and editing them. This symposium, like *MD's* previous ones, is worth not only reading but close study by all prospective medical writers.

Longitudinal Studies of Child Personality. Abstracts with index. By ALAN A. STONE, M.D. and GLORIA COCHRANE ONQUÉ, M.D., with a foreword by MILTON J. E. SENN, M.D. XIV and 314 pages with index. Cloth. Published for The Commonwealth Fund by Harvard University Press. 1959. Price $5.00.

This volume covers all significant papers and studies in the field of child personality development through 1955. There are 297 numbered bibliographical entries in the abstract section, arranged alphabetically by the names of the authors. Each entry covers the title, summarizes the text, notes setting, subject, time span, method of observation and testing, and findings. Most abstracts, in addition, have author's interpretations. The index is by subject matter; hence there is a complete reference to all abstracts.

The need for the longitudinal approach or the long-term study has long been demonstrated in this field, as in others. This collection of abstracts tends to afford a longitudinal orientation to the reader, saving his own time and providing a background which will tend to give better direction to his own later inquiries.

Concepts, Theories, and The Mind-Body Problem. H. FEIGLE, M. SCRIVEN and G. MAXWELL, editors. 533 pages. Cloth. University of Minnesota Press. Minneapolis. 1958. Price $7.00.

This is Volume II of the current series of works from the Minnesota Center for Philosophy of Science that deal with the methodological problems of general science, and particularly, of psychology. In this collection of essays, the focus is upon the logical analysis of definitions and concepts common to all science or, to be more exact, upon the logical analysis of the language in which they are expressed and related to other concepts and the observable world. The essays of Scriven and Pap are especially instructive with respect to these problems. A related topic that receives extended treatment is the procedure of theory construction, the nature of the terms that must be employed, and their relations to empirical data. Finally, a long and thorough analysis, which takes on encyclopedic proportions, of the conventional mind-body controversy is provided by Sellers. As anyone familiar with the work of the authors cited would easily guess, the predominant orientation of the book is positivistic in character and reflects the dominating concern of contemporary philosophy with the analysis of the language of science.

These essays will not prove easy for the layman to read, but he can hardly fail to find his effort rewarded if he is persistent. For the professional behavioral scientist increased awareness and caution—in his use of scientific language, and thinking about scientific theory—should result.

Tensions Can Be Reduced To Nuisances. By EDMUND BERGLER, M.D. 239 pages including index. Cloth. Liveright. New York. 1960. Price $4.95.

Tensions Can Be Reduced to Nuisances is a "self-help" book for not-too-neurotic people by Edmund Bergler whose skepticism about the general run of self-help projects is notable. The persons capable of self-help by reduction of "tension" are limited to the group who can consciously accept the fact that everybody has self-damaging tendencies and who can face constant reproaches from the inner conscience.

The text contains a carefully detailed elementary discussion of the unconscious elements in the human mental make-up, with their conscious consequences. It is illustrated plentifully from the author's clinical material. It lays heavy emphasis, of course, on the concept of basic psychic masochism. It seems to the reviewer that this book can be of a great deal of practical use not only to persons not already fixated in markedly neurotic patterns but to some of them as well. The author might or might not agree that much of his advice involves learning to tolerate frustration, or at least the unjustified reproaches of the inner conscience.

One point that the reviewer sees as strongly in the book's favor is that it is in no sense a book of self-analysis. The author has long contended that self-analysis is seldom a productive procedure, and this work cannot be used as a text for that process. It can be used, however, as a guide for the handling of problems created in the unconscious when they have not too catastrophic results in consciousness. The reviewer thinks that most readers who are able to understand it should profit by it.

The Bystander. By ALBERT J. GUERARD. 205 pages. Cloth. Little, Brown. Boston. 1958. Price $3.75.

Nearly 100 years after publication of Dostoevski's *The Gambler* a professor of English at Harvard attempts a modern version. His hero describes himself: "... writer, artist, translator, hack, gambler, sensualist, fool ... the onlooker at his own ruin." A masochistic character and gambler is excellently described, a character that would be greeted as original, were it not for Dostoevski.

Emotional Forces in the Family. SAMUEL LIEBMAN, M.D., editor. 157 and viii pages with index. Cloth. Lippincott. Philadelphia. 1959. Price $5.00.

This volume is the fifth in a series based upon lectures given at the North Shore Hospital, Winnetka, Ill. The material would serve as a short summary of the problems of emotional forces and impacts in the development of the family. It does not bring any important addition to our present knowledge in this major problem area.

A Family Grows. By BERT KRUGER SMITH. 20 pages. Paper. University of Texas Printing Division. 1959. Price 25 cents.

Conformity and the Inner Self. By ROBERT L. SUTHERLAND, Ph.D. and EUGENE C. MCDANALD, JR., M.D. Paper. University of Texas Printing Division. 1959. Price 20 cents.

"A Family Grows" describes the development of an adolescent clinic where a trained team consisting of a psychiatrist, a psychologist, social workers and other necessary ancillary personnel is used on an intensive basis to study a single adolescent. In most cases, two entire days are devoted to the adolescent and his family, with free discussion, both in group settings and in individual settings where necessary. Good results are claimed for this intensive short-term therapy, the authors pointing out that in the two days the team approach devotes as many hours as they would give in individual therapy over a much longer period. They feel that the concentration of treatment with the presence of the parents and the team allows for considerable ventilation of emotional feelings and a readjustment in the family relationships. The reviewer thinks that, rather than the discussion of individual cases, a statistical study of this type of treatment and of its results in comparison to individual therapy would be of great interest.

The second pamphlet studies the need of conformity. It is on a rather superficial level, but recognizes that even with conformity certain individuality must remain.

The Seven Ages of Woman. By ELIZABETH PARKER, M.D. 609 pages. Cloth. The Johns Hopkins Press. Baltimore. 1960. Price $6.50.

This is a well-written book for women. It traces the physical, psychological and spiritual development of the woman from conception to death. It suffers, as all such books do, from a certain amount of oversimplification, but, on the whole, contains a wealth of information with very little misinformation.

Because of its nature, it is unlikely that it will have as wide a distribution as it should have.

They Talked to a Stranger. By LEN O'CONNOR. 276 pages. Cloth. St. Martin's Press. New York. 1959. Price $3.95.

A Chicago reporter describes juvenile delinquency in his city. His book is a case study of 10 individual boys. Anyone who is familiar with the problem of juvenile delinquency will be able to multiply each of these cases by a thousand. There is nothing remarkable or individual about them, and there is constant repetition. From the point of view of the psychiatrist or psychologist this book has nothing new to offer. It may arouse lay interest for further preventive action.

Dictionary of American Slang. HAROLD WENTWORTH and STUART BERG FLEXNER, compilers and editors. 669 pages. Cloth. Crowell. New York. 1960. Price $7.50.

Slang is not only a phenomenon of much psychiatric and psychological interest, but a knowledge of slang is a valuable tool, possibly an essential one, for dealing with patients.

The dictionary under review is comprehensive and appears—as far as a reviewer can judge—generally accurate. It covers, not only current slang but slang over half a dozen decades back, with dates or approximate periods noted. A very valuable feature is the inclusion of what seem to be virtually all of the generally-used and generally forbidden "dirty" words of the language. These are words that mental patients commonly use. A therapist who has no idea that they are "dirty," is likely to be confused or baffled when he fails to find them in even the most complete general dictionary.

The reviewer thinks that for this reason alone this new dictionary belongs in every library used by students or by physicians in psychiatric training. It should be especially valuable for institutions taking part in the exchange-student program where many students are unfamiliar with the language in general and are completely stymied by "dirty" words or slang.

Dynamics in Psychology. By WOLFGANG KOHLER. 158 pages. Paper. Grove. New York. 1960. Price $1.75.

This is a paperback edition of a book first published in 1940. It is divided into three sections. In the first, are studied the ways of psychology and the problems of research in psychology. Research is compared with that in physics. The discovery of new ways of measurement led to other discoveries in the field of physics and to the study of particles and forces which could not be observed. In psychology, the study of sensations has been retarded because they are so common in experience that they are taken for granted. The author describes various sensory phenomena which bring about illusions because of abnormal placement in time and space, and discusses the need for further study in this field.

In the second section, he discusses the field theory, again in comparison with the magnetic field of physics. A sensation in its own area may have no effect, but by placing sensations in juxtaposition, there may be a combined field effect.

In his final section, the author describes various studies in retention and recall and problems which have arisen in research in this field.

Although this book was first written 20 years ago, it is still recent in its concept. It is a worth-while addition to any psychological library.

Source Book of Medical History. LOGAN CLENDENING, compiler. 685 pages including index. Paper. Dover. New York. 1960. Price $2.75.

Classics of Medicine and Surgery. Collected by C. N. B. CAMAC. 435 pages. Paper. Dover. New York. 1960. Price $2.25.

Classics of Medicine and Surgery and *Source Book of Medical History* can be considered companion volumes presenting not only important but readable source material in the history of medicine.

Camac's collection presents complete and unabridged texts of such famous and important work as Lister's paper on the antiseptic principle in the practice of surgery, Harvey's paper on the circulation of the blood, Morton's on the administration of ether, and Holmes' report on the contagiousness of puerperal fever. There are 12 such papers, all complete except Laënnec's paper on auscultation and the stethoscope, which is excerpted material from a larger work.

The collection made by the late Dr. Clendening covers some of the same ground but presents much more material, 124 pages in excerpt form. The selections range from ancient Egypt to comparatively recent times, and there is a good index.

Both books are nicely printed on good paper. They are priced for the student. They not only belong in every medical reference library but contain much entertaining as well as informative reading besides.

Practical Neurological Diagnosis. By R. GLEN SPURLING, M.D. 284 and XVIII pages with index. Cloth. Thomas. Springfield, Ill. 1960. Price $6.75.

This small, but concise, descriptive and very practical book, which presents all correlated anatomical, physiological data with useful clinical diagnostic methods in the fields of neurology, has been known by students, neurologists and psychiatrists for years, and has been used for ready reference. This completely revised sixth edition, in the reviewer's opinion, will be of great value, also, to psychiatrists, especially in preparing for examinations by the specialty board.

Child in the Shadows. By EDWARD L. FRENCH, Ph.D. and J. CLIFFORD SCOTT, M.D. 156 pages with index. Cloth. Lippincott. Philadelphia. 1960. Price $3.50.

This book is prepared as a manual for parents who are faced with the frustrating problems and special needs of retarded children. This guide gives up-to-date explanations about the causes, types, and ways of diagnosis of mental retardation. It also covers the problems that may occur from the time of discovering the illness to the time of the expected adjustment. It should be very helpful and useful for parents.

The Uterus. By JOSEPH T. VELARDO, WILLIAM B. OBER and HERBERT G. WINSTON and 74 other contributors. 653 pages. Paper. New York Academy of Sciences. New York. 1959. Price $7.00.

The book available under this title is part (pages 385-1040) of volume 75 (Art. 2) of the *Annals of the New York Academy of Sciences.* The volume is divided into nine parts: historical and morphogenetic considerations; biochemistry and histochemistry of the uterus; problems in uterine tumors; blood coagulation in pregnancy, labor and the puerperium; aspects of the gravid uterus; uterine contractions; menstruation and menstrual disorders; structural and functional aspects of the placenta; and an evaluation of nonsteroidal ovarian hormones.

With the possible exception of the last section, which is principally devoted to the still controversial ovarian hormone, relaxin, the material presented at the February 1958 New York Conference on *The Uterus,* and embodied in this book, represents a reliable guide to current knowledge in the areas considered. Good lists of references accompany most of the papers, although these could have been improved by an editorial policy which required a uniform style for presenting such lists.

Psychiatric institutions, especially of the large public type, have a bona fide, though limited, interest in purely obstetrical and gynecologic problems; but the interest of the psychiatrist in the brain-injured child is or should be unlimited. It is extremely difficult to come to any useful conclusion as to how to attack this problem in a practical way. One grapples with the material in the ninth section of this monograph without arriving at any definite, workable principles. It is clear that relaxin is a hormone which must be reckoned with and has been neglected; but it is also clear that it does not function by itself, and the framework in which it does function in the human does not clearly emerge from the special circumstances which are customarily required for laboratory analyses. The hormone has been found to be useful in premature labor though whether primarily so is not clear. Claims have also been made of its value in conditions of cervical rigidity, but agreement as to its practical utility in such conditions is far from complete. Whether relaxin is of any use at all in peripheral vascular disease or arteriosclerosis may be doubted.

Insofar as the uterus fashions the material the psychiatrist is concerned with, it behooves him to ascertain to what extent it may be responsible for poor products.

I Reclaimed My Child. By LUCILLE STOUT. 89 pages. Cloth. Chilton. Philadelphia. 1959. Price $2.75.

This is a somewhat moving, somewhat pathetic, report of a mother sacrificing herself for her retarded child.

Complex/Archetype/Symbol. In the psychology of C. G. Jung. Bolingen Series LVII. By JOLANDE JACOBI. Translated from the German by RALPH MANHEIM. 236 pages and XII pages with bibliography and index, illustrated. Cloth. Pantheon. New York. 1959. Price $3.00.

The problem this book is concerned with, is the role which complexes play in our conscious life.

According to Jacobi, one of Jung's leading interpreters, the difficulty the neurotic person has in resolving his complexes is due to his fear of confronting his inward and outward reality. He chooses, therefore, to "think" life rather than experience it, clinging to his complexes even when he suffers unbearably from them. The first section of the book, concerning the complex, holds that the resolution of the complex is never an intellectual achievement but an emotional event, demanding the courage to take risk and an ego capable of enduring pain.

In the second section, concerning the archetype, the author analyzes a child's dream in which both the archetype and the symbol demonstrate their role in the unconscious. "Archetype" is Jung's term for what he considers is the formal aspect of an instinct which is in the content of the collective unconscious. In this book, connections are traced on the one hand between archetype and complex, and on the other hand between archetype and symbol.

This book is, thus, a study of three central, interrelated concepts: the individual complex, the universal archetype, and the dynamic symbol.

Psychiatry: Descriptive and Dynamic. By JACKSON A. SMITH, M.D. F.A.S.P. 341 pages with index. Cloth. Williams and Wilkins. Baltimore. 1960. Price $7.50.

In this text, various recognizable syndromes and more frequently seen disorders are described "by keeping in mind that diagnosis precedes treatment in ordinary medical practice." The book is designed as collateral reading for medical students.

Regeneration and Degeneration of the Nervous System. By SANTIAGO RAMON Y CAJAL. Translated by RAOUL M. MAY. Two volumes, XX and 761 pages including index. Cloth. Hafner. New York. 1959. Price $20.00.

This extensive, largely monographic, work represents the result of eight years of continuous and patient study, and includes besides a résumé of numerous previous studies of this limited subject. The work is descriptive of regressive and progressive processes of traumatic origin in the nervous fibers and cells, and especially of processes due to expansional mutilation. The author has particularly occupied himself with the exact and clear description of undoubted and easily verified facts.

Motives in Fantasy, Actions, and Society. JOHN W. ATKINSON, editor. 873 pages. Cloth. Van Nostrand. Princeton, N. J. 1958. Price $9.75.

One of the most important recent developments in the field of motivation has been the work of McClelland, Atkinson and their associates in the development of a valid measure of motivation. Their early and best-known work dealt with the achievement motive, but they have also studied a number of others. Atkinson has now brought together in one volume 46 papers in the area, many of them previously unpublished, and has, in addition, linked the articles by his editorial comments.

Although not all the studies derive directly from McClelland's and Atkinson's attempt to measure motives by a relatively objective and simple system of analyzing TAT scores, all deal with the general problem of evaluating motives from fantasy, usually TAT, materials. The reader who is unfamiliar with the progress that has been made in this area in the last decade will be impressed with the fruitfulness of the approach described. The book includes detailed scoring instructions for three motives, achievement, affiliation and power, so that the investigator who would like to learn to use the technique can do so. This is a useful book for anyone interested in the problem of motivational measurement and the relation of motives to behavior.

Borstal Boy. By BRENDAN BEHAN. 372 pages including glossary. Cloth. Knopf. New York. 1959. Price $4.50.

Brendan Behan is a roaring young Irish author and dramatist of considerable professional repute. When he was 16, he was arrested as an Irish Republican Army bomb plotter and sentenced to a Borstal, the progressive English version of the American reform school. Behan tells, with a good deal of his own emotional reactions, of his Borstal experiences. It is a very impressive book, and a shocking one, for Behan sets down the exact language of his fellow inmates and the exact details of his Borstal experiences. Anybody concerned with the problem of juvenile delinquency and the handling of juvenile delinquents should find this book important and interesting.

Now or Never. By SMILEY BLANTON and ARTHUR GORDON. 273 pages. Cloth. Prentice-Hall. Englewood Cliffs, N. J. 1959. Price $4.95.

The reviewer thinks that this is a regrettable book full of false optimism about the middle years. It is to be wondered whether the senior author, having repeatedly reached the best seller lists (in co-operation with Norman Vincent Peale), is not now making more and more compromises in the interests of popularizing.

The Sociology of the Patient. By EARL LOMAN KOOS. 266 pages. Cloth. McGraw-Hill. New York. 1959. Price $6.00.

This is the third edition of a basic sociology text written primarily for student nurses. The first 160 pages deal with basic concepts of sociology. Culture, the family, extrafamily groups, communities, and social stratification are some of the units discussed and amplified upon. The author then has a short chapter on general health problems and objectives, health insurance, hospitals, etc. Such important matters as patient-attitudes and patient-family attitudes as modified by social class, superstition, values, etc. are taken up. Mental illness and epilepsy are briefly discussed, as are social problems, such as poverty and crime. Finally, there is a good short chapter on the role of the nurse as interpreter, educator, and confidante. There are review questions at the end of each chapter and the end of the book. This is a useful and concise book for student nurses, although the over-all general approach is perhaps somewhat overemphasized.

The Clinical Application of Projective Drawings. EMANUEL F. HAMMER, Ph.D., editor. XXII and 663 pages. Cloth. Thomas. Springfield, Ill. 1958. Price $13.50.

At the present time few clinical psychologists will argue about the usefulness of projective drawings as a clinical tool. Drawings have earned a secure place in the test battery. Dr. Hammer's book should also achieve the same secure position among reference books in the library of clinical psychologists and psychiatrists.

Eleven authorities in the field have contributed articles relevent to their particular technique, among them the discussions of human figure drawings by Sidney Levy, Karen Machover and Florence Halpern, and the presentation of the House-Tree-Person technique of John N. Buck.

The book presents a good discussion of the present stage of development in its field, and offers many tempting hypotheses for the experimental and research psychologist.

Matter and Memory. By HENRI BERGSON. 255 pages. Paper. Doubleday. New York. 1959. Price 95 cents.

This paperback edition is a reprint of a classic in psychology. In it, Bergson analyzes the function of memory to refute the contradictory assumptions that matter is unknowable through perception and that it has no existence aside from perception. This is a philosophical position, of course, as well as a psychological tenet. It is a dualistic position, one which "affirms the reality of spirit and the reality of matter," and so is separated by a wide gulf from the tenets of modern psychology. The work thus is principally of historic interest, and, as a historic document, its value is considerable.

An Introduction to Probability Theory and Its Applications. Volume I, 2d. edition. By WILLIAM FELLER. XV and 461 pages. Cloth. Wiley. New York. 1957. Price $10.75.

This textbook, originally published in 1950, has two additional chapters in the new edition. Professor Feller (of Princeton) limits his applications of probability theory to discrete sample spaces which can be learned at the undergraduate level. Oversimplified, the result forms a basis of theorems regarding constant relations during finite to infinite possibilities of chance or change. Although Feller develops general laws by proving the theorems, he constructs satisfactory models which can be applied to questions, from the abstract to everyday problems, including the mathematics of engineering, genetics, and physics.

In addition to the introduction, there are 17 chapters and an index. Most chapters give problems for solution; and, toward the end of the book, the answers are supplied.

Among the subjects considered in the various chapters are binomial, poisson and compound distributions; unlimited sequences and Bernouli trials; expectation, random variables, walks, and ruin problems; Markov chains; conditional probability and combinations of events; combinatorial analysis; time dependent stochastic processes; laws of large numbers and generating functions.

This book is written for the university student who has considerable mathematical knowledge or who has "mathematical intuition." The style is interesting. The reviewer has recently seen Professor Feller's probability equations used in medical literature. No doubt where the variables are as great as in medicine, the probability laws can find important application.

Nature, Man and Woman. By ALAN W. WATTS. 176 pages. Paper. New American Library. New York. 1960. Price 50 cents.

The point of view of Alan Watts is that of a philosopher and a man of religion rather than that of a scientist. In *Nature, Man and Woman* he discusses love and the philosophy of love rather than the scientific aspects of the relationship between the sexes. This reviewer thinks the book will be particularly useful to those of the author's own orientation, quite regardless of what the psychologist or psychiatrist may think about it professionally. It should be noted that it is well written but is by no means on the elementary level. With all this, there are some extraordinary psychological insights: "The sadist is really a vicarious masochist, for in inflicting pain he identifies himself emotionally with his victim, and gives a sexual interpretation to his victim's reactions to pain."

The Historical Development of Physiological Thought. CHANDLER McC. BROOKS and PAUL F. CRANEFIELD, editors, with contributions by 15 additional authors. xiii and 401 pages with index. Cloth. Hafner. New York. 1959. Price $6.00.

This volume is the result of a series of lectures at the Downstate Medical Center of the State University of New York during 1956 and 1957, supplemented by material not presented then but subsequently considered necessary to round out the treatment of one or another of the five general areas considered. These are: "Medicine and Basic Scientific Thought" (one article, by Owsei Temkin), "The Basis of Integrative Function and Human Behavior," "Humoral Transport and Integrative Function," "Mechanistic Thought, Energetics and Control in Biology" and "Vital Processes and the Disease State." It is the thesis of the editors that since physiology interdigitates with cognate traditional medical disciplines, it is more desirable to trace the development of physiological thought in terms of "physiologic concepts" than in terms of the traditional factual teaching method of the subject. For such a design to have gone off in a smooth and commodious manner would have required closer intellectual and emotional commitments on the part of the contributors than seem to have been possible.

The result is a series of topical essays of extremely unequal merit. What the reader will consider to be of greatest value to *him* will depend upon his background. The psychiatrist's attention will be attracted by the titles and authors of: "Development of Ideas Relating the Mind with the Brain" by H. W. Magoun (The reviewer found it a disappointing item), "The Biology of Consciousness" by H. W. Smith (valuable, sensitive and cerebral), "The Dynamic Process in Psychiatry" by Gregory Zilboorg (standard, good, but not new), "Physiology and the Recurrent Problem of Vitalism" by Iago Galdston (stimulating reflections from a well-stored mind), "What Keeps Men Alive" by Bruno Kisch (a pedestrian affair), "The Contribution of Pharmacodynamics and Pharmacology to Basic Physiological Thought" by Alfred Gilman (a brief factual account which does not go very deep or very far back) and "Towards a Philosophical Study of the Idea of Disease" by L. J. Rather (an important and lucid effort to arrive at first principles). It will come as no surprise to the psychiatrist, however, that the best and most valuable parts of the book are not necessarily those which initially capture his attention. Nor will it occasion amazement to discover that Owsei Temkin on the dependence of medicine upon scientific thought and John Eccles on the strictly factual "The Development of Ideas on the Synapse" have given the reader well-marshalled ideas and well-documented details which tend to stick in his mind.

The reader may be disturbed to discover that the various contributors are not always in agreement as to their historical facts or the meanings of these but, as already said, it is better to view this book as a collection of essentially unrelated essays than to expect the integrative intentions of the editors to be fulfilled.

Hematopoietic Mechanisms. By ALBERT S. GORDON and WALTER ROOT (Co-Chairmen) and 65 associates. 412 pages. Paper. New York Academy of Sciences. New York. 1959. Price $5.00.

This monograph comprises pages 407-820 of volume 77, Art. 3 of the *Annals of the New York Academy of Sciences.* The increasing use of physiologic techniques in hematologic studies, is evident in the first part, devoted to the "Quantitative Study of Blood Cells." Part 2, "Hormone Control of Blood Cell Formation," deals with the effort to find a direct stimulus for red cell formation now that neither oxygen lack nor neural factors can be found responsible. Destruction of blood cells by hemolytic mechanisms is also presented in Part 2. "Hemopoietine," which Gordon previously preferred to call ESF (Erythropoietic Stimulating Factor) in his article in the January 1959 issue of *Physiological Reviews,* is the subject of Part 3. Part 3 may thus be considered an elaboration of Part 2 in accordance with current investigational interest.

"Like other living organisms," says Root, "red and white blood cells exist for a finite time." Their life span has been measured in various ways, and the methods used, as well as the results obtained, are presented in Part 4.

Cure of Mind and Cure of Soul. By JOSEF GOLDBRUNNER, Ph.D. 127 pages. Cloth. Pantheon. New York. 1958. Price $2.75.

The author's theme relates to the transition which the Roman Catholic priest has been required to meet during recent years.

Earlier, the priest dealt with his congregation as a whole, but today the emphasis is on his relationship with the individual. The author believes that the modern priest must understand, and have a working knowledge of, what he terms "depth psychology" as parishioners are met in the confessional, or as students in religious education, etc.

The Psychoanalytic Study of the Child. Vol. XIII. RUTH S. EISSLER, ANNA FREUD, HEINZ HARTMANN and ERNST KRIS, editors. 575 pages. Cloth. International Universities Press. New York. 1958. Price $8.50.

Volume XIII of this series is devoted in part to papers read at the Ernst Kris Memorial Meeting. It also contains some interesting clinical studies, the most important being W. G. Niederland's "Early Auditory Experiences."

The Natural Science of Stupidity. By PAUL TABORI with an introduction by RICHARD ARMOUR. 288 pages including index. Cloth. Chilton. Philadelphia. 1959. Price $4.50.

Richard Armour starts his introduction to this wonderful satire with the sentence: "Some are born stupid, some achieve stupidity and some have stupidity thrust upon them. But most are stupid not because of what has been done to them by either their ancestors or their contemporaries. It is their own hard won accomplishment."

If one reads this book for the chapter "The Stupidity of Red Tape" alone, the time is well worth while for anyone who works in an office, an institution, factory or home. Just a few examples:

$$\frac{P}{PO} = R + B\,\frac{S}{SO} + C\,\frac{M}{NO} + B\,\frac{V}{VA} + A\,\frac{N}{NA}$$

This formula must be either a military secret or to quote the author, "the Supreme Elixir of Life"? No, it is the formula for French undertakers to work out the price of funerals in any town of over 20,000 inhabitants.

$\frac{M}{NO}$ =variation in price of the fodder for horses that draw the hearse.

In another example, Mr. Tabori explains that in 1943 only two people were driven to suicide while making out tax returns. One of them filled out the blank, left a note: "I think I'm going crazy," and shot himself. The *New Yorker* added, "several people had to be committed to institutions —but—it is always difficult to know whether there were other contributing factors." The author points out that once civil servants acquire desks and filing cabinets, "something mysterious and terrifying happens to them. The letter replaces the spirit, precedent pushes out initiative, rules prevail over mercy and understanding."

Mr. Tabori, a writer of note, with many books behind him, concludes that stupidity is a medical problem and consequently can be cured.

The Society of Captives. By GRESHAM M. SYKES. 144 pages. Cloth. Princeton University Press. Princeton, N. J. 1958. Price $3.75.

This is an excellent account of a maximum security prison. The historical development of the philosophy of imprisonment as a means of punishment and rehabilitation is discussed. This is followed by a discussion of the principles and psychology of the custodians, interrelationship between custodians and convicts, and the convict relationships.

The book should be read by all who are interested in, or dealing with, those convicted of crimes. No ready solution is offered, but the problems are brought forth forcefully.

The Mentally Retarded. By STANLEY P. DAVIES. 57 pages. Paper. State Charities Aid Association.

This pamphlet is subtitled "A New York Study with Recommendations, by Stanley P. Davies, prepared for The New York State Association for Mental Health and made possible by funds by The Grant Foundation." It is a survey of the facilities for the mentally retarded in institutions and in the community. It covers, in six sections, the research activities of the Department of Mental Hygiene; diagnosis, treatment and planning; the pre-school-age child; the school-age child; the post-school years; and the institutions for the mentally retarded. At the end of each section, recommendations are outlined.

This is a well-documented and informative pamphlet, possibly erring on the side of overoptimism. It will be helpful to those interested in mental retardation and should be available for educators and psychiatrists alike.

Concentration, A Guide to Mental Mastery. By MOUNI SADHU. 222 pages. Cloth. Harper. New York. 1959. Price $3.50.

The author states that by means of his method of concentration one can reach the "higher states of consciousness." Subtly throughout the book he introduces the argument that failure to reach the higher state is due to the reader's inability to follow the instructions properly.

The work is pseudo-scientific. From the beginning, the author uses false analogies. He also states early in the book that under no circumstances is the person attempting his method to talk about it to others. That method is typically self-hypnotic. The exercises, described in the latter part of the book, are all of the self-hypnotic type.

Although this book is of interest as a study in the methods of Eastern occultism, it is to be doubted whether it will have any great significance except for the person previously conditioned.

James Joyce. By HARRY LEVIN. 246 pages. Paper. New Directions. New York. 1960. Price $1.45.

Levin's book is a learned, well-meaning, and psychologically inadequate study of Joyce. E.g., *Ulysses* is characterized as "an elusive and eclectic Summa of its age: the montage of the cinema, impressionism in painting, leitmotif in music, the free association of psychoanalysis, and vitalism in philosophy." The fantastically incomprehensible passages in Joyce's later writings, are explained by the writer's "highly developed auditory imagination" that "came to equate language and experience." Vaguely, and without elaboration, acknowledgment is made to newer psychiatric studies: "It can be, and often is, said of most artists that they project upon the surfaces of the outer world their inner conflicts and private frustrations." The clarification of that specific problem is presented only naïvely (if at all) in the present volume.

Can People Learn to Learn? By BROCK CHISHOLM, M.D. 143 pages. Cloth. Harper. New York. 1958. Price $3.00.

This is the eighteenth book in the series of world perspectives—a series which "is planned to gain insight into the meaning of man who not only is determined by history but who also determines history." Like its predecessors, it is stimulating, arouses critical thought and gives the reader a broader concept of man. The title itself is somewhat paradoxical by implication. Education is usually looked upon as learning, not as learning to learn, although basically this should be its purpose. In essence, this is the major premise of the book.

The author's contention is that because of the prejudices, beliefs, superstitions, anxiety, and religious intolerance and nationalism instilled in the child by his parents, religion, and society, he is unable to use his reason; and thus his thought and behavior as an adult are dictated by his emotions. This, the author feels, is the obstacle to the resolution of most of the world's pressing problems. He offers little in the way of practical suggestions, or even little hope that man will be able to learn to learn unless he has centuries yet available. With the hydrogen bomb a reality, this may seem unlikely.

Asexualization. By JOHAN BREMER, M.D. 366 pages. Cloth. Macmillan. New York. 1959. Price $5.00.

This is a general review, with a follow-up of 244 cases of legal castration of both men and women. The material is from Norway where castration is legal as a penal measure and as medical treatment. Considering that this measure is still suggested on occasion—usually by laymen—as a therapeutic or punitive procedure in this country, Dr. Bremer's report should be of considerable interest and value to American psychiatrists. The author appears to think—conservatively—that there is "definitely doubt" as to the justification for castration therapy of women, and that the procedure does not have too much to recommend it in the case of men.

Dictionary of Thought. By DAGOBERT D. RUNES. 152 pages. Cloth. Philosophical Library. New York. 1959. Price $5.00.

Every author of twenty books—especially a philosopher—likes a collection of his "best sayings," but not everybody finds a publisher. The author, being chief editor of a large publishing house, does not have this trifling difficulty; and he arranges his epigrammatic ideas alphabetically. Unfortunately, he comes up with dicta like these: "Dreams hide no secrets of which mind awake is unaware." And: "Man is pretty well aware of which currents course through his gray matter; he conceals them so well, however, that it is his neighbor who remains unconscious of their existence." These two sentences dispose nicely of a man called Freud. Elsewhere in the book, banalities are extravagantly phrased.

Levels of Knowing and Existence. By HARRY L. WEINBERG. 274 pages. Cloth. Harper. New York. 1959. Price $4.50.

The author of this book states that semantics has changed his own way of life. In his introduction he also says that the book's aim is not to discuss general basic principles, but rather, as a more advanced text, to show applications of semantics. The discussions on actual semantics are well written and explain the basic concepts. Weinberg discusses the digerence between factual and inferential knowledge, the choice of standadrs, the difference between discovery and invention, and the concept of "making the map fit the territory" rather than the territory fit the map. By this he means making the theoretical considerations fit the actual sensory facts, rather than using "so-called" facts to fit a theory. He discusses the limitations of language, the inability to verbalize certain sensations and feelings, and the use of symbols. The chapter on "The Value of Values" is exceptional. It gives a concise comparison between relative and absolute values.

From this point on, the book becomes controversial. The next chapter is on "Semantitherapy." Using the authoritarian point of view of Dr. Abraham A. Low of Chicago, Weinberg attempts to build a system of therapy based on intellectualized concepts of language and feeling and what he calls "second order sensation." He admits that this is of no value to the seriously neurotic or psychotic person, but, in spite of this, advocates its use, both as a form of self-therapy and a form to be employed by "psychotherapists." The intellectual understanding of mechanisms, however, has again and again been shown to be insufficient to control symptoms, just as Low's authoritarian viewpoint fails in a large majority of cases. The fact that there is no easy explanation for the similarity of results by various forms of organic and psychologic therapy does not negate their value, nor is it an argument, on the semantic or any other level, for the application of semantitherapy.

The author's final chapters on religion and cybernetics enter the field of metaphilosophy.

This book is informative and controversial and, as such, is interesting reading to anyone in the fields of psychology or psychiatry.

The Proud Possessors. By ALINE B. SAARINEN. 395 pages. Cloth. Random House. New York. 1958. Price $5.95.

This volume deals with "the lives, times and tastes of some adventurous American art collectors." Although the author has no inkling of the inner reasons prompting art collectors, and sticks to superficialities, she has compiled interesting material. The section dealing with Gertrude Stein and her clan is worth mentioning especially.

The Art and Science of Love. By ALBERT ELLIS, Ph.D. 400 pages including index. Cloth. Lyle Stuart. New York. 1960. Price $7.95.

Dr. Ellis' new marriage manual places heavy emphasis on the physiological aspects of sex. It is in some respects a midcentury successor to Van de Velde's *Ideal Marriage*. Ellis goes into considerable detail in the description of the varied positions and procedures of heterosexual relations; and lovers of pornography—as well as general readers in genuine need of information—will be among the purchasers of his book. Although he is a psychologist and a practising marriage counselor, many psychiatrists will consider his discussions of sexual psychology and psychopathology to be superficial and misleading. He repeats what has by now become a pet illustration, his example of men without women on a desert island. He appears to think that if they do not, in this circumstance, engage in homosexual activities they are slightly abnormal. He appears to accept the Kinsey statistics 100 per cent and to have other ideas that would not be accepted generally by most of his psychiatric or psychological colleagues in psychotherapy. Ellis emphasizes his own system of psychotherapy which he calls "rational psychotherapy." He seems to have a poor opinion of Freud; and he refers to such modern authorities in the sex-deviation field as Bergler and Karpman only in lists of practitioners who believe this or that.

The reviewer thinks that the author dangerously simplifies and underestimates the difficulty of treating sexual deviations. He is glad to note, however, that Ellis does emphasize the fact that sexual deviation, including homosexuality, can be treated successfully.

South Carolina: Evil Shadow. By EVELYN ALLDAY. 177 pages. Cloth. Exposition Press. New York. 1959. Price $3.25.

This is a personal report of a woman who became involved in trouble with a daughter, a neighbor, and the local authorities in South Carolina. The result was a psychiatric test that declared her sane. The author draws far-reaching conclusions on justice as administered in the south.

The Marriage Bed. By HARRY F. TASHMAN. 303 pages. Cloth. University Publishers. New York. 1959. Price $4.95.

The subtitle of the book is, "An Analyst's Casebook." The lay reader to whom the book is directed, may come to the conclusion that the explanations offered in these cases, are common analytic usage. Nowhere is there a clear statement that personal simplifications or opinions are involved. Admittedly, every psychiatrist has the right to believe whatever he wishes. The case is different, the reviewer thinks, when one presents his own eclecticism as "psychoanalysis."

The Beast. By DANIEL P. MANNIX. 140 pages. Paper. Ballantine Books. New York. 1959. Price 35 cents.

The Beast is an interesting journalistic account of a fabulous psychopath whose wealth undoubtedly kept him from commitment to a mental institution. Aleister Crowley first became notorious in his early twenties during the last decade of the nineteenth century. Among the other matters that occupied him from that time until he died at 72 were scandalous incidents with other men's wives, mountain climbing (in which he actually set a real world altitude record), drug addiction, sadism, worship of Satan, and foundation of a "religion" based on sex-magic which was more sex than magic. The whole book is an account on a superficial level of a man who would well repay serious psychiatric study. At least four previous books have been written about him, besides fiction concerning him and his religious practices. But a study of his psychology seems never to have been undertaken.

The Cult of Shakespeare. By F. E. HALLIDAY. 218 pages including index. Cloth. Yoseloff. New York. 1960. Price $5.00.

The phenomena, personal and dramatic, of Shakespeare and his genius form a never-exhausted subject of literary and psychological speculation. Halliday presents an account of the Shakespeare cult from his death to today; and, if he leans toward the literary, rather than the psychological aspects, there is still a wealth of fascinating material reflecting on the psychology of Shakespeare's worshippers, detractors, improvers, fabricators and "unmaskers." Halliday gives a popular survey of the whole historic panorama in a single volume. His material is fascinating in itself and is well presented. His book should be well-received by persons whose interests are as varied as the acting of the plays and the study of the psychology of the neo-Baconians.

Girl on the Wheel. By IRIS B. BUAKEN. 169 pages. Cloth. Vantage. New York. 1959. Price $2.95.

Girl on the Wheel is an inept novel which seems to have been written with the very best intent. It concerns the adventures of a young woman psychiatric technician (attendant) in a west coast state hospital during a period when treatment efforts were shaking up staff organization and morale. The author unfortunately has included so much in the way of sensational sex behavior and has brought her plot to such an impossible conclusion as to nullify her good intent.

Uncle Sam. By ALTON KETCHUM. 143 pages including index. Cloth. Hill and Wang. New York. 1959. Price $4.50.

Uncle Sam is a symbol. Apparently he had a prototype, and Ketchum discusses him here, as well as the symbolism he came to be. The author holds the widely held, though not universally accepted, opinion that Samuel Wilson of Troy, N. Y., supplier to the American army during the War of 1812, was the original of this national symbol. The reviewer is aware that there are other candidates, but he thinks that this collection of notes and the fascinating illustrations of symbols which have represented America from colonial times to today will be of interest, regardless of personal opinion about identity, to anybody concerned either with American history, symbolism or the growth of legend.

The Leopard's Spots. By WILLIAM STANTON. 245 pages including index. Cloth. University of Chicago Press. 1960. Price $4.00.

This book by a historian traces the development and vicissitudes of racist ideas in the pre-Civil War United States, concentrating on the areas in which scientific thought and religion converge. Many of the early believers in superiority or inferiority of different races were sincere scientific men, advancing the best scientific thought of their time. Stanton assesses the influence of the various scientific doctrines and their part in shaping the American mind toward civil conflict. His book is of great interest not only to students of history but to students of the various scientific disciplines concerned with the truth about mankind.

Existentialism and Indian Thought. By K. GURU DUTT. 92 pages. Cloth. Philosophical Library. New York. 1960. Price $2.75.

Existentialism appears to have more points of contrast than of agreement with Indian philosophical thought. There is, however, enough agreement to make a short comparison interesting. The reviewer thinks this very small book will be most useful, however, in its tracing and comparison of the views of the modern European Existentialists. It seems to this reviewer, however, to be overpriced for that purpose.

Strangers on the Shore. By DOUGLAS KIKER. 344 pages. Cloth. Random House. New York. 1959. Price $3.95.

A 29-year-old navy veteran of the Korean War utilizes his experiences in this novel about the peacetime navy. He depicts quite vividly the hopes, disappointments, quarrels, jealousies and aspirations, etc. of some officers. However, he also attempts to describe a few neurotic women, and here he fails.

The Creation of Woman. By THEODOR REIK. 159 pages. Cloth. Braziller. New York. 1960. Price $3.75.

In *The Creation of Woman* Theodor Reik sets out to complete a project he indicated sketchily to Otto Rank more than 45 years ago. Bible scholars have long been puzzled by certain aspects of the story of Eve and the expulsion from paradise. Otto Rank made the brilliant suggestion that the story of Eve's birth from Adam's rib was a reversal to conceal the original content—the birth of the first man from a goddess. Reik now suggests in addition that an ancient ritual in the form of initiation rites is represented in the story of Eve's birth and the loss of Eden. He points to rites all over the world where the initiated boy is reborn in ritual form from man, not woman, and is brought out from the magic land of initiation into the adult world.

This short treatise is well reasoned and well documented. It should be of interest both to students of religion and of psychiatry. An index would improve its usefulness.

Benjamin Franklin and Polly Baker. By MAX HALL. 193 pages including index. Cloth. University of North Carolina Press. Chapel Hill. 1960. Price $5.00.

Benjamin Franklin and Polly Baker is the story of a once famous literary hoax perpetrated, apparently innocently, by Benjamin Franklin. Franklin wrote a story, apparently first printed in England, of the speech in her own defense supposedly given by a young woman on trial for bastardy in colonial New England. The fiction was taken for fact and, like Mencken's later history of the bathtub, was reprinted many times. Franklin finally owned up to it.

The book is interesting for the light it casts on the character of Franklin and on the literary and social preoccupations of the period.

Carbon Dioxide Therapy. L. J. MEDUNA, editor. 541 and xii pages, bibliography and index. Cloth. Thomas. Springfield, Ill. 1958. Price $14.50.

This symposium was organized by the members of the Carbon Dioxide Research Association to contribute to the progress of "organic psychiatry." The larger part of the book is devoted to the technic and administration of carbon dioxide treatment, which is described repeatedly, with indications and contraindications. A final chapter presents a "neurophysiologic theory of psychoneuroses." Here, the accepted concepts of neurosis are ignored in favor of a single form of therapy which is probably not accepted even by a majority of organic psychiatrists.

The Nature of Science. By DAVID GREENWOOD. 95 pages. Cloth. Philosopical Library. New York. 1959. Price $3.75.

This book is a collection of essays in the general area of logic and mathematics dealing with the nature of science, concept formation, quantitative induction procedures, causality of the problem of real numbers. The relationship of language and semantics to science is stressed. Some of the material is rather advanced and beyond the understanding of the average college graduate without advanced mathematics.

On the whole, however, the book is well written, factual, and instructive in this very important new area of learning. It can be well recommended.

Segaki, a Zen Novel. By DAVID STACTON. 198 pages. Cloth. Pantheon. New York. 1959. Price $3.50.

This tale is set in feudal Japan and, according to the jacket, helps explain the Zen doctrine. The book is written in a highly stilted and stultified form and will have little appeal in the English-speaking world, except possibly for those converted to Zen philosophy. The ability to hear, converse, live with, and become intimate with, ghosts and other supernatural beings does not appeal to the average individual. The fact that the hero's mode of life is changed by sexual contact with a woman dead for several hundred years does not seem conducive to spiritual uplift.

Gestalt Psychology. By WOLFGANG KOHLER. 222 pages. Paper. Mentor. New York. Price 50 cents.

This is a reprint of the hard-cover edition published by Liveright, and is a well-written exposition of Gestalt psychology. It starts with a discussion of the principles of introspection. It studies sensory organization and perception of both whole and part figures, the principles of behaviorism and the characteristics of organized entities. It goes on to a study of the relationship of organization to association and of the part played by recall and insight. It is a worth-while addition to any library on psychology or psychiatry.

The Balanced Life. By HANS FREUND. 186 pages. Cloth. Philosophical Library. New York. 1959. Price $4.50.

The author poses the question: "What is a good life?" and attempts to find a universal answer. He discusses three main moral theories: hedonistic, humanistic, and Judeo-Christian. He discusses the pleasure-happiness principle, and distinguishes man's role from that of animals, as an activity of the soul in conformity with or involving the use of reason. His book may have some value in religious philosophy but has no scientific basis.

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ALBERT E. PAGANINI, M.D. Dr. Paganini was born in Brooklyn in 1920. He received his B.S. from St. Francis College in Brooklyn in 1941, and his M.D. from Georgetown University School of Medicine in 1944. He had rotating internships at St. Catherine's Hospital, Brooklyn, and St. Vincent's Hospital, Staten Island, then was in private general practice from 1947 to 1951. He was in military service during the Korean War from 1951 to 1953, during which time his interest and training in psychiatry began. He has been at Pilgrim (N.Y.) State Hospital since 1953. At present, he is a supervising psychiatrist. Dr. Paganini is a member of the American Psychiatric Association and other professional organizations.

MOSES ZLOTLOW, M.D. Dr. Zlotlow, born in Poland in 1906, received his M.D. from the Medical School at Bari, Italy in 1935. During World War II, from 1942 to 1945, he was in various German concentration camps. In 1946, he came to the United States and after internship, was on the Pilgrim (N.Y.) State Hospital staff from 1949 until October 1958, when he moved to Middletown (N.Y.) State Hospital as supervising psychiatrist. He is on the neurological staffs at Bellevue Hospital, and Beth Israel Hospital, New York City. He is a member of the American Psychiatric Association and the New York State and Orange County medical societies.

HOWARD D. ZUCKER, M.D. Dr. Zucker is a graduate in 1941 of the College of Physicians and Surgeons, Columbia University. His further training was obtained at various New York hospitals, and included two years in pathology with Dr. Paul Klemperer and half a year of psychiatric residency. There was a three-year interruption for service in the navy. In 1949, he entered private practice as an internist, and joined the staff of Mt. Sinai Hospital, New York City. Increasing interest in the psychiatric facets of his practice led him to return to residency training in psychiatry—first at Manhattan (N.Y.) State Hospital and then at Mt. Sinai. In the fall of 1957 he entered the private practice of psychiatry, and joined the Mt. Sinai psychiatric staff.

Currently his work at Mt. Sinai includes functions as liaison psychiatrist assigned to orthopedics, and the teaching of psychiatric residents and of student social workers. He is a member of various societies, including the American Psychosomatic Society, and the American Psychiatric Association, and is a member of the executive committee of the New York City Medical Society on Alcoholism. He was co-author of an article on the treatment of alcoholism (J.A.M.A., 153:895:1953). His paper in this QUARTERLY is his first purely psychiatric publication.

MRS. ELEANOR MANUCCI. Mrs. Manucci is a graduate in 1948 of Bennington College, where she majored in social psychology. She obtained her training in projective techniques at Mount Sinai Hospital and later served as an assistant clinical psychologist engaged in psychodiagnostics and research. She has finished her course work toward her master's degree at the College of the City of New York, and plans to work toward a doctorate. She recorded all group sessions described in the paper in this QUARTERLY of which she is co-author, and participated in an analysis of the protocols.

M. RALPH KAUFMAN, M.D. Dr. Kaufman has been psychiatrist-in-chief at Mount Sinai Hospital, New York City, and professor of psychiatry at the College of Physicians and Surgeons, Columbia University, since 1946. He is also neuropsychiatric consultant to the surgeon general, Department of the Army. Dr. Kaufman was graduated in medicine from McGill in 1925. He was a commonwealth fellow in psychiatry at Harvard from 1927 to 1930. Later he was clinical director of McLean Hospital, Waverley, Mass., and attending neuropsychiatrist at Beth-Israel Hospital, Boston. He was president of the American Psychoanalytic Association from 1949 to 1951, is a life fellow of the American Psychiatric Association and a member or fellow of various other professional associations. He is at present chairman of the executive board of the Mental Health Film Board and was formerly president of that organization. He is an associate editor of this QUARTERLY.

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He interned at St. Vincent's Hospital, New York City, from 1953 to 1954, and became resident psychiatrist at Creedmoor (N.Y.) State Hospital in July 1954. From June 1955 to the present, he has been a senior psychiatrist at Creedmoor.

JOHN R. WHITTIER, M.D. Dr. Whittier took his B.A. at Harvard College in 1939, and his M.D. at Columbia College of Physicians and Surgeons in 1943. He served a rotating internship at Gorgas Hospital, Panama Canal Zone, 1943 to 1944, and attained the rank of captain in the United States Army, during service from 1944 to 1946.

He spent two years in research in neurophysiology and neuroanatomy, and then was assistant resident at the Neurological Institute of New York, from 1948 to 1949.

He was resident in psychiatry at the Bronx Veterans Administration Hospital from 1949 to 1951, and was trained in the Columbia Psychoanalytic Clinic for Training and Research.

He was formerly assistant clinical professor of neurology and is now assistant clinical professor of psychiatry at Columbia University. He has been principal research scientist and institute director, Creedmoor Institute for Psychobiologic Studies, since 1954.

DEXTER M. BULLARD, JR., M.D. Dr. Bullard is now in naval service at the Chelsea (Mass.) Naval Hospital, where he was assigned after completing three years of residency at the Massachusetts Mental Health Center. A graduate of Yale, he received his M.D. from the University of Pennsylvania. The study in this issue of which he is co-author is one of several to which he has contributed on chronic schizophrenia. Dr. Bullard will be with the navy until July 1961.

MRS. BARBARA R. HOFFMAN. Mrs. Hoffman is working as a social psychologist at the Massachusetts Mental Health Center. She is a graduate of Radcliffe College, from the department of social relations, and early in her college work became interested in state hospital work, serving as an attendant at Metropolitan State Hospital in 1955. She has made several contributions on the hospital treatment of chronic schizophrenic patients and the nature of state hospital milieu.

LESTON L. HAVENS, M.D. Dr. Havens is an instructor in psychiatry at Harvard Medical School and a senior physician at Massachusetts Mental Health Center. He graduated from Williams College and Cornell University Medical College. He received his training in psychiatry at Massachusetts Mental Health Center, where he was resident and chief-of-service.

LINDSAY CAMERON HURST, M.B., B. Chir., D.P.M. Lindsay Cameron Hurst was born at Hull, England, in 1924. He gained second class honours in the Natural Sciences Tripos, Part I and II, at Cambridge University in 1944 and 1945 and graduated B.A. in 1945. He obtained the degrees of M.A., M.B., B. Chir. in 1949 and has worked in state mental hospitals since 1951. He obtained his D.P.M. in 1958 and is now psychiatric registrar at Shenley Hospital, Hertfordshire, England. He is the author of "The Unlocking of Wards in Mental Hospitals" (Am. J. Psychiat., 114: 306. 1957).

KURT NUSSBAUM, M.D. Dr. Nussbaum, assistant chief of the mental hygiene service at the Baltimore Regional Office of the Veterans Administration, is a fellow of the American Psychiatric Association, a member of the Maryland Psychiatric Society, the Association of Military Surgeons, and a service member of the American Medical Association. He received analytic training at the Baltimore-Washington Psychoanalytic Institute. He is also an instructor in psychiatry at the Johns Hopkins Medical School and a psychiatrist in the out-patient department at the Johns Hopkins Hospital. His chief endeavor is in therapy, both individual and group. He is particularly interested in the dynamics of schizophrenia, in psychosomatic illness, and in the prevention and treatment of emotional reactions due to the stress of combat and mass disaster.

Dr. Nussbaum, born in Germany in 1909, received his medical degree from the Medical Academy of Dusseldorf in 1932. He interned in Berlin and served residencies in both German and American hospitals, coming to this country in 1935. He has been in the practice of psychiatry since 1939, when he joined the staff of Philadelphia State Hospital. He was at Buffalo (N.Y.) State Hospital in 1941 and 1942, and from 1942 to 1946 was in the army medical corps. He is chief of the psychiatry and neurology service of the 457th General Hospital United States Army Reserve, with the rank of colonel. He has held his present post in the Veterans Administration since 1946.

SIDNEY MALITZ, M.D. Dr. Malitz, born in New York City in 1923, received his medical education at the Chicago Medical School and was graduated in 1946. After a rotating internship at St. Mary's Hospital in Huntington, West Virginia and a second year as senior rotating intern at Bethesda Hospital in Cincinnati, Dr. Malitz began his residency training in psychiatry at the New York State Psychiatric Institute, New York City, in 1948. He was appointed senior research psychiatrist at the Institute in 1951 and served in that capacity until he entered military service the following year. In the army, Dr. Malitz was stationed at the Walter Reed Army Medical Center where he was assigned to the Neuropsychiatric Divisions of the Army Medical Center Research and Graduate School. He was one of four full-time research neuropsychiatrists in the Army Medical Corps. His investigations at Walter Reed involved studies on psychic and behavioral changes in patients with organic brain damage and studies of the effects of various drugs on human behavior.

Upon completing his military service in 1954 Dr. Malitz returned to the Psychiatric Institute. On January 1, 1956, he was appointed acting principal research psychiatrist and chief of the Department of Experimental Psychiatry, replacing Dr. Paul H. Hoch who left this position to become commissioner of mental hygiene of the State of New York. Dr. Malitz,

in collaboration with Dr. Hoch, has had extensive experience in somatic methods, including the use of drugs as therapeutic tools in psychiatric patients and the application of psychosurgical procedures. He has also been active in the study of hallucinogenic agents and the substances which block their activity.

Dr. Malitz is assistant clinical professor of psychiatry at the College of Physicians and Surgeons, Columbia University, is assistant attending psychiatrist at Presbyterian Hospital, and is in charge of the psychopharmacology clinic there. He is assistant visiting psychiatrist at the Frances Delafield Hospital, New York. Dr. Malitz is certified in psychiatry by the American Board of Psychiatry and Neurology. He is a fellow of the New York Academy of Medicine, the American Psychiatric Association and the American Association for the Advancement of Science, and is a member of numerous other professional societies. He is author or co-author of over 25 publications pertaining to the effects of tranquilizers and psychotomimetic agents on mental functioning and language, and on behavioral changes in brain-damaged patients.

Dr. Malitz is married, has two children and lives in Scarsdale, N. Y.

BERNARD WILKENS, M.D. Dr. Wilkens is a senior research psychiatrist at the New York State Psychiatric Institute, New York City. He is an associate in psychiatry at Columbia University College of Physicians and Surgeons and an associate attending psychiatrist at the Vanderbilt Clinic of the Columbia-Presbyterian Medical Center. Dr. Wilkens, born in Hartford in 1923, received his M.D. degree in 1950 from the Southwestern Medical School of the University of Texas in Dallas. He served his internship in medicine on the Cornell Division of Bellevue Hospital and, in 1952, entered residency training in psychiatry at the New York State Psychiatric Institute. During his army service from 1953 to 1955, he spent a year in Germany as assistant chief of the neuropsychiatric service of the Heidelberg installation and a year as assistant chief of the neuropsychiatric service of the army hospital at the Infantry Training Center, Fort Benning, Georgia.

Upon returning from service he completed his residency training at the Psychiatric Institute and was subsequently appointed a senior research psychiatrist in the Department of Experimental Psychiatry. He has been author or co-author of a number of scientific publications concerning psychotomimetic and tranquilizing agents. He is a diplomate of the American Board of Psychiatry and Neurology. He is a research fellow of the New York Academy of Medicine, and a member of the American Psychiatric Association, the American Association for the Advancement of Science, the Association for Research in Nervous and Mental Disease and the state and county medical societies.

WILLIAM C. ROEHRIG, Ph.D. Dr. Roehrig received his Ph.D. degree from Columbia University in 1954. He was a departmental assistant in the department of psychology at Barnard College for two years, and in 1955-56 served as experimental psychologist (psychophysiology) at the Army Quartermaster Research and Development Command. From January 1957 to July 1960, he held the position of senior research scientist (psychology) with the Department of Experimental Psychiatry and Research Psychology at the New York State Psychiatric Institute. He is now working in industry as an engineering psychologist.

PAUL H. HOCH, M.D. Dr. Hoch is New York State commissioner of mental hygiene. He was principal research scientist in psychiatry at the New York State Psychiatric Institute, New York City, before his appointment as commissioner in 1955. A native of Hungary, he was graduated in medicine from the University of Göttingen, Germany in 1926. After internship at Göttingen and in Switzerland, he entered research work at Göttingen and was first assistant physician in charge of the out-patient department and of the brain research division of the university clinic there when he left Germany to come to the United States in 1933.

He served for nine years on the staff of Manhattan (N.Y.) State Hospital and was in charge of shock treatment there when he left in 1942 for service with the War Shipping Administration and as consultant with the United States Public Health Service. He returned to New York State service as assistant clinical psychiatrist at the Psychiatric Institute in 1943, became senior clinical psychiatrist in 1946 and principal research scientist in 1948.

Dr. Hoch has contributed previously to this QUARTERLY and is author, co-author or editor of numerous other scientific publications. He is certified in both psychiatry and neurology by the American Board of Psychiatry and Neurology and has held numerous teaching positions. He is a fellow of the American Psychiatric Association and a fellow or member of a number of other professional organizations.

GEORGE WEISS, Ph.D. Dr. Weiss holds a Ph.D. in psychology from Yeshiva University. He is now undergoing post-doctoral training as a member of the Society for Psychoanalytic Study and Research, New York City. Dr. Weiss went into the field of psychology after training in pharmacy at St. John's University and the University of Michigan, followed by a B.A. in English at Indiana University. He received an M.A. in psychology at Kent (Ohio) University before attending Yeshiva.

Dr. Weiss is director of psychology at the New Jersey State Prison and its branches; he has been with the prison for the last seven years. He previously served a psychology internship at Annandale Farms, a reformatory for boys at Annandale, New Jersey. Dr. Weiss' principal interests have been in the psychodynamics of offenders, particularly in personality assessments by projection techniques. At present he is interested in research in the pharmacological treatment of offenders and in the experimental testing of psychoanalytic concepts.

JOHN LANZKRON, M.D. Dr. Lanzkron was born in 1906 in Hamburg, Germany where his father was a physician. He received his medical degree from the University of Hamburg in 1932 and left Germany the following year because of "racial" persecution. He was in practice in Belgium for some time. He received the diploma of the Institute de Médecine Tropicale Prince Léopold as a specialist for tropical disease in 1939. From 1946 to 1951, he was senior medical officer (public health) of the American Joint Distribution Committee, with headquarters in Munich.

Dr. Lanzkron came to the United States in 1951 and entered New York State service at Gowanda State Hospital in 1952. From 1953 to 1959, he was a senior, then a supervising, psychiatrist at Middletown State Hospital, Middletown, N. Y. He is now assistant director at Matteawan State Hospital for the Criminally Insane.

He is a diplomate in psychiatry of the American Board of Psychiatry and Neurology.

NEWS NOTES

GOLDFARB TO BE HUTCHINGS MEMORIAL LECTURER

Alvin I. Goldfarb, New York City psychoanalyst and consultant on services for the aged for the New York State Department of Mental Hygiene, will deliver the twelfth Richard H. Hutchings Memorial Lecture in Syracuse, N. Y. on October 3, 1960. His topic will be "Psychodynamic Concepts in the Psychiatric Care of the Chronically Ill and Aged," and the lecture will be given at 8 p.m. at the College of Medicine auditorium at the Upstate Medical Center. The lecture is open without charge to all members of the medical profession and all medical students. It is one of a series sponsored in memory of Dr. Hutchings by a group of his colleagues and friends. Dr. Hutchings, former editor of this QUARTERLY, former president of the American Psychiatric Association, and former superintendent of both Utica and St. Lawrence (N.Y.) state hospitals, died in October 1947. He was one of the early participants in the psychoanalytic movement in this country. At the time of his death, he was professor emeritus of clinical psychiatry at the Syracuse University College of Medicine, now part of the Upstate Medical Center where the lecture will be given.

Dr. Goldfarb, born in New York City, received his bachelor's degree from Brown University and his medical degree from Johns Hopkins in 1939. After internship, a research fellowship, and military service, in which he served with the air corps in the North African and European theaters, he served a residency in neurology at Mt. Sinai Hospital, New York City, then became clinical assistant in psychiatry and psychosomatic medicine; he is still assistant attending psychiatrist there. He trained at the Columbia University Psychoanalytic Clinic and received his certificate in psychoanalytic medicine from Columbia in 1953. Dr. Goldfarb has held a research fellowship in neurosurgical research at the Jewish Hospital, Brooklyn; has been senior physician psychiatrist and chief of the male admission service at Fairfield (Conn.) State Hospital; and has served as adjunct neuropsychiatrist at Beth Israel Hospital and assistant psychiatrist at Presbyterian Hospital, both in New York City. He has been chief of neuropsychiatry at the Hospital and Home for Aged and Infirm Hebrews, New York City since 1949; and he established a research program there into methods of psychoanalysis with the aged. He has taught at Yale and at the Columbia Psychoanalytic Clinic. He has held his position as consultant for the Department of Mental Hygiene since 1956. Dr. Goldfarb is married and has three children. He lives in Bayside, Long Island. He is the author of a number of psychiatric works.

ADMISSION AND RELEASE ARE UNDER STUDY

A special committee of the Association of the Bar of the City of New York, with representation by New York State Commissioner of Mental Hygiene Paul H. Hoch, M.D., and other psychiatrists, has been set up to examine and evaluate existing laws, regulations and practices relating to mental hospital admissions and releases. The committee was established as the result of conferences between Presiding Justice Bernard Borein of the Appellate Division, First Department, and Dr. Hoch; and Allen T. Klots, former bar association president, is chairman.

Besides Commissioner Hoch, psychiatry is represented on the committee by Arthur W. Pense, M.D., deputy commissioner of mental hygiene and Francis J. O'Neill, M.D., director of Central Islip (N.Y.) State Hospital. E. David Wiley, counsel for the department; Benjamin Apfelberg, M.D., associate director of the psychiatric division of Bellevue Hospital, New York City; and Harold Miles, M.D., director of the Monroe County Community Mental Health Services, are consultants for the committee.

Commenting that the excessive use of judicial commitments is being eliminated in countries with up-to-date programs, Dr. Hoch remarked that the New York department is particularly interested in nonjudicial admissions —voluntary admissions and those based on physicians' certificates. In announcing the formation of the committee, President Dudley B. Bonsal of the bar association noted that no major change had been made "since 1933 in the law governing commitment and release of the mentally ill to state hospitals in New York" and that the principal provisions of that law are based on "the 1909 insanity law."

The 1960 session of the New York Legislature took an important step toward the encouragement of nonjudical admission procedures in adopting a law permitting admission to state hospitals on the certificate of two physicians. This is particularly intended to eliminate "processing" patients through New York City psychopathic hospitals as a preliminary procedure to state hospital admission.

DRS. TRAVIS AND WARNER RETIRING AS INSTITUTION HEADS

Heads of two important New York State Department of Mental Hygiene institutions, John J. Travis, M.D., director of Manhattan State Hospital since 1941, and George L. Warner, M.D., director of Craig Colony and Hospital since 1957, are retiring on May 1, 1960. Dr. Travis has been in the department 38 years, Dr. Warner, 37. Born in Canada and a graduate of the medical college of the University of Toronto in 1911, Dr. Travis served in the medical corps of the Canadian army in World War I. He came to New York State in 1922 to join the staff of Buffalo State Hospital; and he served at Creedmoor, in the Albany central office and at Willard

before his appointment at Manhattan. Dr. Warner was born in Ontario. He was a high school science teacher when he entered Queen's University Medical School, where his studies were interrupted by service in the Canadian army in the first world war. He entered New York State service as an intern at Marcy State Hospital; and he served at Marcy and at Utica, besides service as clinical director at Matteawan, before becoming head of Craig Colony.

HUXLEY LECTURES AT MENNINGER FOUNDATION

Aldous Huxley, internationally famous author, is the twelfth Alfred P. Sloan visiting professor in the Menninger Foundation School of Psychiatry this spring. Huxley, who is at present professor-at-large of the University of California at Santa Barbara, is teaching psychiatric residents at the foundation. Besides novels of psychiatric interest, Huxley's numerous writings include work on mescaline and witchcraft.

NARCOTICS RESEARCH FUNDS ALLOCATED

A $600,000 narcotics research facility is being set up at Manhattan (N.Y.) State Hospital, financed half with federal funds of the National Institutes of Health and half by a state appropriation. A wing of an existing building is being remodeled to contain 20 laboratories, animal rooms, a library, a conference room and space for offices. The facility, planned as a basic science laboratory for research in drug biochemistry and physiology and general neurochemistry, will be part of New York State's first full-time narcotics research unit. The clinical unit was established in September 1959, a 55-bed establishment in a second wing of the building housing the laboratories. It is set up for the treatment of drug addicts on an experimental basis, with emphasis on research into the causes of addiction and on the development of improved treatment methods. There are both in-patient and out-patient facilities. The state hospital where it is placed is centrally located in New York City, on an island in the East River, with access by bridge from three boroughs.

MEETINGS AND SPECIAL COURSES SCHEDULED

The Academy of Psychoanalysis has announced that its Mid-Winter Meeting will be conducted on December 10 and 11, 1960 at the Hotel Biltmore, New York City. Frances S. Arkin, M.D., is president of the Academy for 1960-61.

Montefiore Hospital is announcing a number of postgraduate courses in clinical medicine as part of the program of postgraduate medical educa-

tion of Columbia University. The courses beginning in September will be given at the hospital, 210th Street and Bainbridge Avenue, New York City.

The schedule has been announced for the International Conference on General Semantics to be conducted at the University of Hawaii, July 29 to August 4. It will be followed by a two-week seminar at the university. Arrangements are being made so that those who are interested but cannot attend may register in absentia and receive all conference material. Inquiries should be addressed to Andrew W. Lerios, Inc., 133 Montgomery Street, San Francisco.

The program for the International Congress for Psychotherapy has been announced for Vienna, August 21 to 26, 1961. The deadline for papers for this session will be February 20, 1961. Professor Doctor Hans Hoff, chief of the Psychiatric and Neurological Clinic of Vienna, is president of the congress committee. Another 1961 meeting will be the Third World Conference of Psychiatry in Montreal June 4 to 10 under the auspices of the Canadian Psychiatric Association and McGill University. Visits to psychiatric centers in the eastern United States will follow.

Morton F. Reiser, M.D., took office as president of the American Psychosomatic Society at the annual meeting in March 1960 in Montreal. Stewart Wolf, M.D., is president-elect. The society's 18th annual meeting is announced for April 29-30, 1961 in Atlantic City.

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